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**“Tracking Crime Harm by Phone Numbers of Customers of Drug Dealers:
Analysing Changes from Before to After Arrest of Drug Dealers”**

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RESEARCH CONTRACT

Research Question

Does the arrest of drug dealers in one Borough Command Unit correspond to any reduction in the presence of a USER's phone number in the local drugs market, or to the Cambridge Crime Harm Index value of the crimes or victimisation of the USERS?

Sub Questions

1. Applying the USER phone number as the unit of analysis, what was the daily number of appearances of a USER's phone number in the phone records of all the drug dealers (lines) in 2022?
2. To what extent does the appearance of a USER phone number in the call data of the drug lines change from before to after the closure of each drug line?
3. Employing the USER as the unit of analysis, with USER's name and date of birth, what is the total CCHI history of each USER across all offence types between 01/01/2022 and 30/06/2023?
4. Are those USERS generating most harm the same as those USERS who are in most contact with the drug lines?
5. To what extent does the USER CCHI score for victimization and offending change from the 30, 60, and 90 days before to the 30, 60, and 90 days after the arrest of each dealer who had been in contact with the USER's phone numbers?
6. To what extent do the crime types that USERS suffer or perpetrate change following the arrest of their drug dealer?

Research Design

This is an exploratory study of the before and after impact of closing drug lines on the USERS of those lines. Conducted within the setting of the illicit street drug market trade of heroin and crack cocaine in the London Boroughs of Hackney and Tower Hamlets. The study relies upon telecommunication call data between Drug Lines and USERS in a live operational field setting to assess the impact that law enforcement has on USER contact with the drugs market, offending, and victimisation. In doing so this study applies the Cambridge Crime Harm Index (CCHI) to the recorded crime which feature known USERS.

Data and Methodology

OPERATION YAMATA was set up in early 2022 to pro-actively target the crack cocaine and heroin markets in the Metropolitan Police Service (MPS) Central East Borough Command Unit (BCU).

This study has been granted access to all the call data obtained as part of OP YAMATA between April 2022 and March 2023. 91 closed Drug Lines are the focus of this study. Over 500,00 lines of call data has been collated, with 2752 individual USER phone numbers detected, from which 983 known USERS have been identified. 340 of those 983 USERS featured on the MPS Crime Reporting Information System (CRIS) a combined 993 times between 1st January 2022 and 30th June 2023. This enabled the CCHI score of each USER to be calculated and for victim and suspect harm to be separated when required.

Data Analysis

With the data extracted, cleaned, and organised the analytical process was applied to answering the research questions. The 340 known USERS who featured on CRIS had been in contact with at least one of the 58 drug lines. Using a range of Excel functions each drug line was separated and the CCHI harm of each USER was calculated for the 30, 60, and 90 days before and after closure. This provides an overall picture of how many drug lines experienced a reduction, increase or no change, in their USER's overall CCHI score in the 30, 60, and 90 days after drug line closure.

Using pivot tables and other Excel tools those USERS who caused or suffered the most harm were identified. A similar process applied to identifying which types of crime USERS committed or suffered the most and how this changed following drug line closure.

Findings

This study has six main findings:

1. There is a 'Power Few' of USERS who generate the most harm.
2. The USERS who are most in contact with Drug Lines are not the same USERS who generate the most harm.
3. 80% of USERS only ever contact one Drug Line.
4. Drug Line closure does NOT correspond with an increase in overall USER harm.
5. Drug Line closure DOES correspond with a reduction in USER VICTIM harm.

6. A USER is less likely to be a victim of Theft or Assault after a Drug Line closure but is more likely to be a victim of Domestic Abuse.

Implications of the findings

There are several policy implications that arise from these findings that if enacted could lead to better targeting of resources to reduce harm. These include targeting the 'power few' of USERS causing most harm with both PURSUE and PREVENT tactics. Conducting further research on the USER data to quickly identify vulnerable sex workers and potential domestic abuse (DA) victims so safeguarding measures can be considered. The finding that USERS of a closed drug line suffer less recorded crime presents an opportunity to improve the legitimacy of the tactic in the eyes of potential partners.

To implement these the MPS should enact three recommendations. Firstly, building on the platform this research provides, commission a formal evaluation of OP YAMATA with a view to rolling it out across the MPS. Secondly, provide training to front line officers so that they can analyse the call data and quickly identify a power few of USERS. Finally, implement protocols that allow the sharing of USER data with external partners which they can then exploit to support USERS away from drugs and crime.

This thesis provides an evidence base that supports the Op YAMATA covert tactic and should reassure senior police leaders, critical partners, and the public, that this approach supports future deployment and investment.

ACKNOWLEDGEMENTS

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CHAPTER 1: INTRODUCTION

The “War on Drugs” has been a long, costly, and ultimately futile contest (Mallea, 2014). There has been an undeviating production level of cocaine and heroin for over 60 years, this despite the huge global resource and effort committed to its destruction (Johnson, 2003). The United Kingdom (UK) illicit drugs market is worth an estimated £9.4 billion through servicing the demand for drugs of around 3 million people a year (Black, 2020).

The cost to the UK is significant. Approximately three thousand Britons annually lose their lives each year to drug misuse, and half of all murders are linked in some way to illicit drugs (HM GOV, 2022). The financial burden is estimated to cost the UK £19.3 billion every year with £9.3 billion of that attributed to drug related crime (Black, 2020). This is unsurprising given that the UK’s 300,000 heroin and crack cocaine addicts are responsible for about half of all burglaries, robberies, and other acquisitive crime (POLICY, 2011).

This research undertaking is primarily concerned with these heroin and crack cocaine USERS. It encompasses a novel exploratory approach that employs the telecommunication call data between Drug Lines and USERS in a live operational field setting to assess the impact law enforcement has on USER frequency of contact in the drugs market, offending, and victimisation. Much research in drug related police activity is drug dealer centred and focused on the harm they cause (Hallworth, 2016). Identifying those USERS who generate the most harm and providing an evidence base for current policing tactics through the lens of USERS is at the heart of this study.

Prioritising targets for police resources without an evidence base can lead to subjective methods being applied rather than an evidence-led precision-based approach for ensuring maximum benefit with minimum outlay. This thesis seeks to answer the following research questions to ensure that the optimum resource is deployed to the highest harm targets.

1.1 Research Questions

Key Research Question: Does the arrest of drug dealers in one Borough Command Unit correspond to any reduction in the presence of a USER's phone number in the local drugs market, or to the Cambridge Crime Harm Index value of the crimes or victimisation of the USERS.

Sub Questions:

1. Applying the USER phone number as the unit of analysis, what was the daily number of appearances of a USER's phone number in the phone records of all the drug dealers (lines) in 2022?
2. To what extent does the appearance of a USER phone number in the call data of the drug lines change from before to after the closure of each drug line?
3. Employing the USER as the unit of analysis, with USER's name and date of birth, what is the total CCHI history of each USER across all offence types between 01/01/2022 and 30/06/2023?
4. Are those USERS generating most harm the same as those USERS who are in most contact with the drug lines?

5. To what extent does the USER CCHI score for victimization and offending change from the 30, 60, and 90 days before to the 30, 60, and 90 days after the arrest of each dealer who had been in contact with the USER's phone numbers?
6. To what extent do the crime types that USERS suffer or perpetrate change following the arrest of their drug dealer?

1.2 Research Setting

This thesis is concentrated on the illicit street drug market trade of heroin and crack cocaine in the London Boroughs of Hackney and Tower Hamlets. It is focused on what impact that the law enforcement act of closing a Drugs Line may have on the criminal harm suffered or perpetrated by the USERS of that Drug Line. To the best of the author's knowledge, this is an area that has not previously been studied in any depth and relies on the analysis of call data obtained in the commission of live investigations.

Drug Lines are mobile phone numbers which are often associated with a brand name such as the 'FROSTY' line or 'ACE' Line. The use of mobile phones to deal drugs was instrumental to the phenomenon of 'County Lines', which is the term coined to describe how Organised Crime Networks (OCN) distribute drugs and supply networks from metropolitan cities to provincial towns (Harding, 2020). County lines OCNs exploit vulnerable individuals to transport, distribute and store the drugs (Pitts, 2021). The County Lines model requires an illegal work force that operates similarly to a call centre, where the line holder takes the orders and then dispatches a local dealer to meet with the user to make the exchange (Harding, 2020). Following

significant investment from the Home Office 1,100 County Lines were closed between 2019 and 2021 by UK police (Havard, 2022). Much of this success was due to investigators covertly obtaining the communication data of drug lines to prosecute dealers on the basis of patterns of their call data (Bacon, 2017). The use of mobile phones to sell drugs is no longer restricted to County Lines and is prevalent in the London illicit drug markets.

OPERATION YAMATA was set up in early 2022 to pro-actively target the crack cocaine and heroin markets in the Metropolitan Police Service (MPS) Central East Borough Command Unit (BCU). There are 12 BCUs in MPS.



Figure 1 Map of MPS Borough Command Units

The Central East BCU consists of the two London Boroughs of Hackney and Tower Hamlets. Both are ethnically and socially diverse and have a combined population of approximately 600,000.



Using the same tactics as those used against County Line drug dealers, OP YAMATA obtains call data of Hackney and Tower Hamlet based Drug Lines. Once sufficient evidence is procured the drug dealer is arrested, the phone is confiscated, and the drug line is categorised as closed. The drug dealer is invariably charged, remanded, convicted, and usually sentenced to years, rather than months, in prison.

1.3 The Study

This thesis is an exploratory study into novel areas of policing that are yet to be addressed by any published research. It seeks to assess the extent to which the independent variable, in this case the closing of a drug line, affects the dependent variable, the USER CCHI score. Descriptive statistics are used to organise and summarise large amounts of data. This study has been granted access to all the call data obtained as part of OP YAMATA between April 2022 and March 2023. 91 closed Drug Lines are the subject of this study. Over 500,00 lines of call data have been

collated, with 2752 individual USER phone numbers detected, from which 983 known USERS have been identified. 340 of those 983 USERS featured on the MPS Crime Reporting Information System (CRIS) a combined 993 times between 1st January 2022 and 30th June 2023. CRIS is a MPS tool for recording notifiable offences and registering the suspect and victim details, where known, for every offence. This enabled the CCHI score of each USER to be calculated and for Victim and Suspect harm to be separated when required.

1.4 Roadmap

This thesis is presented over five further chapters. The next chapter conducts a Literature Review of existing academic research and texts. It covers the relationship between USER and Drug Dealer, the impact that law enforcement activity has on USERS, the links between drug use and crime, as well as the development of harm indexes and 'power few' theories. Chapter three describes the research methodology used, exploring the data sources, the analysis, and the data's limitations. Chapter four presents the findings of the study and answers the key research questions. Chapter five interprets the results, the opportunities they offer and suggestions for policy, operational change, and future research. Finally, Chapter six provides some overall conclusions based on the evidence presented within this thesis.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This literature review aims to critically examine the existing body of academic research relating to drug markets, their policing, and the consequent impact on user behaviour. There is a wealth of research surrounding the illicit drugs trade with many studies focusing on the links between drug use and crime. In reviewing the literature there will be a concentration on how this thesis will contribute to the wider debate, and in part add to areas that have received little academic scrutiny. The chapter is spread across six sections. Firstly, it considers the wider drug markets as well as the relationship between supplier and user. Secondly, it reviews the voluminous material on the links between drug use and crime. Section three and four focuses on overt and then covert law enforcement activity, and their impact on user behaviour. Section five and then finally section six, examine the principles of the Cambridge Crime Harm Index (CCHI) and the concept of 'power few'; and how they are both relevant to this exploratory study. Each of the six sections by necessity are relevant to the thesis research questions.

2.2 Drugs Markets and the relationship between suppliers and users

The illicit drugs market in England and Wales can be roughly split into three areas, the international, which sits in the remit of the National Crime Agency (NCA) and Border Force, the regional middle market which both NCA and local Police Services are responsible for, and finally a local retail level that rests firmly with local

policing (McSweeney, Turnbull and Hough, 2008). This thesis is focusing on the end user distribution within the retail market, also commonly referred to as the street market.

The introduction of almost every 'new' illicit drug to the market, whether it be cannabis, cocaine, heroin, acid or ecstasy, is associated with a cultural identity, such as the 60's 'hippy' or the 80's 'yuppies', and the first dealers tended to be ideologically tied to that drug and its associated lifestyle (Potter, 2009). This 'ideological' dealer is soon replaced by established criminal networks that recognise the potential profit associated with the drug who then go on to control the retail market (Potter, 2009).

The nature of the relationship between the commercial dealer and user has been studied across a variety of markets with differing results (Johnson, 2003). Interviews of 135 imprisoned men convicted of drug supply offences across Germany, Slovenia and Italy concluded that trust was key to building strong relationships with customers (Tzvetkova *et al.*, 2016). However a Baltimore based study found 44% of the 373 drug-injecting users they interviewed had witnessed violence from drug dealers in the previous six months (Latkin *et al.*, 2013). Neither of these studies though consider the frequency of contact between the user and dealer or how this may impact user behaviour. This thesis is directly considering the relationship between the frequency of contact and user offending and victimisation. One US study into online drug markets did consider the interaction between user and dealer. The principal researcher collected 12,614 Instagram posts, filtering 5,589 comments that were engaging in selling drugs between 1st Feb and 31st May 2019 (Shah, Li and Mackey, 2022). The study concluded that Instagram can be used as a platform to sell drugs and suggests sellers generated 99.85% of all comments with any interaction leading to purchase most likely occurring off line (Shah, Li and Mackey, 2022). There was no

interaction with sellers, and no 'test purchasing', there was no examination of geolocation data or any attempt to identify the sellers or potential buyers to ascertain the harm they generate.

Until recently the retail market was conducted predominantly at street level in person, with no necessity for prior contact between user and dealer. However, as technology has evolved so has the market. The County Lines model partially emerged due to the ubiquity of cheap mobile phones that enabled drug dealers to more freely sell their product (Hallworth, 2016). The key research question in this thesis is whether closing a drugs line effects user behaviour. Much of the research on County Lines is preoccupied with the harm caused by the dealers rather than harm generated by users (Moyle, 2019). To the best of the author's knowledge, none of the existing research uses telecommunications data to provide academic insights into user behaviour. Instead call data is solely used by police to prosecute dealers. This study seeks to fill this gap.

2.3 Drug use and crime

At its core, this thesis is focused on the drug user and what effect if any the tactic of 'closing' a drugs line may have on subsequent user offending or victimisation. This section reviews the literature surrounding the drivers and motivations for drug use and criminality.

Since the 1980's the idea that those using crack cocaine and heroin disproportionately commit acquisitive crime has been widely accepted by policy makers (Seddon, 2006). This has been attributed to the chaotic lifestyle of a user, their lack of employable skills and their criminal antecedence often making crime a

continuing option (Moyle and Coomber, 2015). Gandossy (1980) was one of the first to try to understand the extent drug use and criminal behaviour are driven by each other or whether other factors may be responsible (Gandossy *et al.*, 1980). His work set the scene for much future research into the drugs/crime nexus and influenced Goldstein (1985) who describes a tripartite conceptual framework for understanding the complex relationship between drug use and violence. He claims that the three interlinked but independent factors of pharmacological, economic, and systemic, interact to lead to violent outcomes. They are a combination of the physical effect of any given drug, the economic necessity to purchase drugs, and the systemic nature of the drugs business such as protecting territories, that all lead to violence (Goldstein, 1985). The debate has continued with many claiming that the consumption of heroin or crack cocaine is not the driver for most property crime (Seddon, 2000), whilst others argue that there is a relationship between its usage and acquisitive crime but that it may not necessarily be a causal relationship (Bennett and Holloway, 2005). There is a growing consensus that drug use and criminal behaviour is multi directional, with each activity driving the other or both caused by a common aetiology (Bean, 2014). The answers to several of this study's research questions should provide better evidence of the frequency and type of offending drug users are coming to notice for.

A significant part of this thesis is collating the offending and victimisation data of the identified users. This differs to other studies which interview users who are engaging with outreach projects. A Norwegian study asked respondents to rank their income generating activity, revealing that 83% of 897 injecting drug users relied upon social security, 43% generated income through drug dealing in the previous 30 days, and 50% of the females engaged in prostitution, with money from theft accounting for 23% of drug expenditure (Bretteville-Jensen and Sutton, 1996). A Vancouver based

study of 457 injecting drug users found 53% of participants funded their habits through illegal means, with 27% engaging in drug dealing, and 18% through sex work (DeBeck *et al.*, 2007). A limitation of these studies is that they rely upon the candour of the participants. They also often require the continuing participation of users which can be difficult to maintain. This is not a limitation in this thesis as USERS are identified through call data and their harm is calculated through their presence on a crime report.

A large UK study utilised Drug Test Record (DTR) results, a saliva-based test conducted in custody after arrest for a trigger offence, namely the possession or supply of heroin or cocaine, theft, burglary, robbery, and vehicle theft, to understand drug user offending (Pierce *et al.*, 2017). The study compared the offending history of 18,965 individuals who tested positive for opiates with a control group of 76,838 who had negative results between 2005 and 2009. All the 18,965 were aged between 18 and 39 years accepted the result of the test, and were charged and sanctioned for the trigger offence (Pierce *et al.*, 2017). Those testing positive for opiates had a far higher rate of offending over their lives compared to those who tested negative. However, the onset of opiate use did not reveal any increase in violence but did increase non-serious acquisitive crime, with males being 3.5 times more likely to commit shoplifting than an offender who tested negative and with females it was 4.7 times more likely (Pierce *et al.*, 2017). Although different in methodology to that adopted within this thesis, the Pierce (2017) study analyses test results that definitively evidence drug use. Whereas this thesis determines drug use through telephone contact between USER and drug line, and then compares recorded victimisation or offending of the USERS within the same period. Overall, it has been noted that there is a “surprising lack of robust evidence focusing specifically on pathways through opiate use and offending” (Hayhurst *et al.*, 2017, p. 11).

2.4 Policing Drug Supply: The Overt Response

Whether a police tactic or strategy is effective is at the core of evidence-based policing, which seeks to improve where limited and expensive police resources are deployed to most efficiently reduce harm (Sherman, 2013). The research questions in this thesis are geared towards understanding the impact of closing a drugs line on user criminality or victimisation. The closure of a Drug Line involves the arrest of the drug dealer and the seizure of the drug phone, leading to USERS quickly becoming aware that the Drug Line is no longer functioning. This section will focus on overt policing tactics and their impact.

A systematic review found strong evidence that Hot Spot policing and Problem Orientated Policing (POP) were the most effective policing tactics to reduce crime (Telep and Weisburd, 2012). The concept of a police 'crackdown' is a form of POP which provides a rapid intensification of law enforcement activity targeting a specific area or a specific criminal endeavour, intended to increase both the perceived and real likelihood of detection (Sherman, 1990). The primary objective of such a crackdown is to suppress or reduce crime. This action can take the form of an initial deterrence whilst the police activity is taking place, or it can induce a residual deterrence that lasts beyond the crackdown but is immediately susceptible to decay (Sherman, 1990). A criticism of crackdowns are that they are examples of "symbolic policing", often more about communicating to the public that police are taking action by targeting the visible signs of drug markets rather than seriously disrupting drug markets (Coomber, Moyle and Mahoney, 2019). Any impact of crack downs is largely temporary and results in counterproductive effects (Coomber, Moyle and Mahoney,

2019). The removal of low-level dealers can allow more organized groups to take over the market, potentially increasing violence (Coomber, Moyle and Mahoney, 2019). Indeed the 'zero tolerance' approach often yields little effect and can cause unforeseen harmful outcomes for the end users of drugs (Spicer, 2020). For example users sharing needles as they are not carrying their own out of fear of being stopped by police, or when injecting missing critical stages due to rushing because police are nearby (Spicer, 2020). If the USERS identified in this thesis experience more harm following the closure of a Drug Line, then this should be highlighted through the process of calculating their CCHI score.

A systematic review undertaken by Dandurand and colleagues (2021) of 326 research articles, including 53 studies, concluded that police interventions had no lasting effect on the availability of drugs and that illicit drugs markets "invariably prove themselves resilient and flexible, and they either promptly adapt to change and reconfigure or displace themselves" (Dandurand, 2021, p. 1). Specifically, the review considered 23 studies that measured the impact of police tactics or strategies focusing on open street drug markets. The review found that most failed to have any impact and those that did only lasted for a short period and that furthermore tactics were expensive and often had negative outcomes (Dandurand, 2021). Operation Crackdown was a two week high profile drug focused policing initiative across ten London boroughs which led to the arrest of 241 people and the recovery of a large amount of Class A drugs (Best *et al.*, 2001). 174 users of crack cocaine and heroin who had purchased during the two-week operation and who were participants in drug treatment programmes, were subsequently interviewed. Of these, 34% were aware of the increased police activity and 80% reported no change in the availability, price or purity of the commodity they had purchased whilst the crackdown was ongoing

(Best *et al.*, 2001). Best *et al.*, (2001) find no evidence that police activity had any effect on the illicit drugs market. There may, of course, be many other reasons for the continued availability of the drugs, such as the two-week period being an insufficient time to disrupt existing stocks of drugs. It is also unclear how representative the sample of 174 users are of the wider drug using community and how they are spread across the ten boroughs. In any event, the Best *et al* (2001) study does not investigate customer or 'user' behaviours, frequency of contact with suppliers, or rates of criminality and victimisation. This thesis intends to focus on these areas and take small but important steps to bridging these gaps in the literature.

2.5 Policing Drug Supply: The Covert Response

Covert tactics are more associated with targeting those organised crime groups who are engaging in middle market or importation of drugs (Bacon, 2017). Such tactics include targeted intercept of communication devices, undercover officers being deployed, and listening devices being planted (Loftus and Goold, 2012). These tactics introduce the risk of entrapment, where a member of public is lured into committing an offence by way of police engineering a scenario that creates a criminal opportunity that would otherwise not have existed. Ultimately "the precise boundary between impermissible entrapment and acceptable subterfuge" (Squires, 2006, p. 352) is continually tested in the courts. The understanding of covert policing and surveillance activities is an under researched area of criminology (Loftus and Goold, 2012). The most common covert tactic at the retail level is test purchase operations where an undercover officer will purchase illegal drugs allowing the operational team to build their case against the drug dealer. This has in recent years been superseded by

covertly obtaining the communication data of drug lines to prosecute dealers on the patterns of their call data (Bacon, 2017).

This thesis, in answering the research questions, relies upon the communication data which was covertly sought during live investigations. Despite an extensive literature search, no academic research has been discovered where telephone call data is analysed to identify users and evaluate the impact of police tactics in targeting the illicit street drug market. This may be due to the fact that as telecommunication data is generally under police control, academic access and use to it is restricted. Albeit, there have been studies that map the social networks of organised crime by analysing police call data and wiretap transcripts from Canada, the USA, and Netherlands (Campana and Varese, 2022). One study looked at nine years' worth of official police data in Canada to map the social networks of a Montreal gang (Ouellet, Bouchard and Charette, 2019). However, much of this is restricted to organised crime and is not focused on the end drug user or applied to measuring the success of a particular police tactic as this thesis seeks to.

The only comparable research to this thesis is a study into the online illicit drugs market in America where the author explores the impact that closing down websites has on drug offences (Zambiasi, 2022). The dates on which several Dark Web drug marketplaces were shut down by law enforcement between 2014 and 2019 were used as the comparison points to understand what effect their closure had on the wider offline illicit drugs market. Crime data was obtained from 3309 police agencies, a vast area that covers about 24% of the US population. The variables analysed were the total number of daily arrests, all offences where ecstasy, crack, heroin, or cannabis were detected, and all offences of murder, theft, assault, and prostitution. When comparing this data to before and after the date of each shutdown the only variable to

have a statistically significant increase were offences involving illicit drugs, and with ecstasy having the most significant increase. This increase is short lived, about two weeks, but is still significant enough for the principal researcher to claim that this provides strong evidence that the closing of online markets 'causes' an increase in demand on the offline street drugs markets (Zambiasi, 2022). This claim of causality is made despite the author acknowledging that a randomised control test (RCT) was impossible by virtue of online markets having no geographical boundaries. The Zambiasi (2022) study is a 'before and after' comparison, the lowest Level One on the Maryland Scale of Scientific Methods (Sherman, 1998). The Maryland Scale can be used as an indicator of internal validity as it rates studies from the weakest Level One correlation studies to the strongest Level Five where intervention and control groups of similar characteristics are assigned at random, minimising the risk of selection bias or causal direction (Sherman, 1998). Consequently, the internal validity of the Zambiasi (2022) study is vulnerable to a plethora of possible alternative explanations for the increase in drug related crime.

There is some evidence that covert tactics used to target street drug dealing work. One study found that arrests as a result of police covertly watching drug sales led to an increase in users being admitted to drug treatment programmes and a significant decrease in robbery and burglary (Mason and Bucke, 2002). The drug treatment workers who then spoke with these users reported that they were saying it was harder to purchase drugs (Mason and Bucke, 2002). This study is now dated and did not calculate the harm of the user's recorded crime reports before and after their arrests for drug dealing. This thesis has a focus on the user criminality and victimisation following law enforcement activity which most studies in this area do not.

Whether covert or overt tactics are used the overwhelming amount of evidence suggests that arresting your way out of the problem by focusing on street level enforcement will not work (Moyle, 2019). There is a tendency in policing to have a 'firefighting' approach that leads to officers moving from one drug market to the next becoming increasingly under resourced and ineffective (Spicer, 2020). In general an increase in police presence or sanctioning can be expected to produce a reduction in the relevant crime type however small or fleeting this may be, but when applied to policing a drugs market the opposite may be true (Sherman, 1990).

2.6 The Cambridge Crime Harm Index

The answers to the key research questions of this thesis are dependent on accurately applying a crime harm index. In calculating crime harm, it is important to remember that not all crime is equal (Sherman, 2013) and that counting individual incidences of crime may lead to crime figures being dominated by minor offences (Maguire and McVie, 2017). The early development of a harm index can be traced back to the 1964 publication of *The Measurement of Delinquency* which produced a crime seriousness scale based on surveying those operating in the criminal justice arena (Sellin and Wolfgang, 1964). This process of defining and measuring offence seriousness furthered the understanding of criminal behaviour in a qualitative way (Wellford and Wiatrowski, 1975). Subsequent research criticised this scale on methodological grounds due to the subjective nature of the surveying of Judges, police officers and students (Walker, 1978).

A 2014 study reviewed the application of a crime gravity score based on sentencing guidelines being applied to 21 police districts in Philadelphia (Ratcliffe,

2015). This highlighted those low volume high harm offences, compared to the high-volume low harm reported crime. The study acknowledged that including crimes discovered through pro-active policing could lead police to skew performance figures by targeting specific crime types (Ratcliffe, 2015). Two crime harm indexes that have replicated the use of sentencing guidelines and come to prominence are the Cambridge Crime Harm Index (CCHI) and the Office for National Statistics Crime Severity Score (CSS).

The CCHI ranks offences based on what that offence would receive in number of days according to the UK sentencing guidelines, so that rape or murder would be scored significantly higher than shoplifting or criminal damage (Sherman, Neyroud and Neyroud, 2016). The CSS claims to have the same objective but applies the mean of sentences passed to those convicted as the measure of severity. Despite their similarities both techniques often produce significantly varying results; usually because actual sentences are inconsistent due to many factors such as, disproportionate sentencing, time off for early pleas, or that certain offences are more prone to attract aggravating factors leading to higher sentencing (Ashby, 2018). CCHI or CSS do not necessarily capture the emotional or financial costs of a crime and it is not as straightforward as saying a murder outweighs a theft when it comes to comparing offences and their harm (Ashby, 2018). Minor offences, often cases of domestic abuse, only account for a very small percentage of harm on CCHI, but the index does not capture the impact of the fear, anxiety and anger caused by the frequency of these minor offences or the accumulative risk it may pose to a victim (Maguire and McVie, 2017). Indeed, the differences in the results can be so profound that prior to analysis that relies on crime harm much thought should be given to which system to use (Ashby, 2018). In some cases, using multiple means of calculating

crime is necessary, such as in spatial analysis of crime where both count and harm-based models are required to avoid an incomplete picture of crime concentrations and to ensure efficient use of police resource (Harinam, Bavcevic and Ariel, 2022).

The CCHI has not been applied within the field of drugs research in any significant way. It is not used as a measurement tool in the Dame Black report (Black, 2020). This may be because many argue that CCHI should be predominantly used for victim reported crimes rather than those crimes detected through police pro-activity such as the possession or production of illicit drugs (van Ruitenburg and Ruiters, 2023). In this thesis CCHI is applied to answer the research questions specifically around the harm generated by those identified users. By linking the harm and frequency of contact between user and dealer it is hoped that the depth of knowledge in the field of drug abuse and criminality can be enhanced beyond what already exists within the literature.

2.7 The 'Power Few' Phenomenon

Once crime harm has been calculated further analysis can provide an evidence base to target limited police resources to where the highest harm from crime is occurring (Sherman, 2013). Criminological research consistently finds that most harm is concentrated within a disproportionately small number, or 'power few', of offenders, geographical locations or victims (Sherman, 2007). A 1986 Minneapolis study found that only 3.4% of all addresses accounted for over 50% of police callouts (Sherman, Gartin and Buerger, 1989). A Kansas based study identified that 44% of all robberies were committed at just 0.31% of locations (Sherman, 1992). Indeed, the 'power few' can be broken down to offence types as well; a Dorset study showed that although

robbery only accounted for 1% of crime it was responsible for 5% of all harm (Dudfield *et al.*, 2017). The same applies to victims, with a wealth of research evidencing that approximately 40% of all crime targets repeat victims (Pease and Farrell, 2016). This subset of repeat victims will also have a power few: in Dorset just 12% of all repeat victims accounted for 84 times more harm on average than other repeat victims, and overall 4% of all victims suffered 85% of the total harm (Dudfield *et al.*, 2017). Equally there tends to be a 'power few' of perpetrators. In Northampton 7.6% of detected offenders accounted for 80% of the total crime harm (Liggins, 2017).

This thesis will consider whether there is a power few of drug users who generate the most harm either as a victim or offender based on both their crime count and crime harm. This research through analysing the call data aims to demonstrate a power few of those users who have the most frequent contact with drug dealer numbers. It may also provide a power few of those known users who generate the most harm. Such research does not appear to have been completed previously and by focusing on the user and identifying the power few it is hoped that future policy in relation to law enforcement tactics can be enhanced.

2.8 Conclusion

This chapter has sought to explore the existing literature surrounding the links between drugs and crime, the relationship between drug markets, dealers and users, and the effect of police activity. Crime harm indexes, and in particular the CCHI has been considered, as have studies that have revealed a power few.

Very little research has used CCHI to rank drug user harm with the potential to identifying a power few of users. Furthermore, no research has been discovered that

uses call data of drug lines to assess what impact the closure of a drug line may have on the end users of that line. This study, by virtue of its design and scope can contribute to an area of research that requires further understanding and may have significant policy implications. The next chapter focuses on the research methods and will lay out the approach and design this study has taken.

CHAPTER THREE: METHODS

3.1 Introduction

This chapter aims to bridge the theoretical and conceptual emphasis from the literature review and the empirical findings that emerge from this research. The key decisions, approaches and methodology employed in constructing the research strategy will be set out in the following seven sections: Operational Setting, Research Design, Operational Setting, YAMATA Database, Call Data, Crime Report (CRIS) Data, Analytical Strategy, and Limitations of the Data.

The operational setting section will provide a detailed description of the enforcement tactics used and their wider context. This will enable the reader to understand the relevance and significance of the data and any subsequent findings. The three data collection sections will detail the managing, storing, and presenting of each dataset to ensure its suitability for the analytical process. The analysis section will focus on how these cleaned data sets were approached to answer the key research questions. Crucially, it considers how analysis was applied to identify if the arrest, charge, and conviction of a person controlling a drugs line has any impact on the drug users of that line. Finally, there will be an exploration of the limitations of the data sets and the analytical methods invoked.

3.2 Operational Setting

The success of policing illicit drugs markets is poor (Johnson, 2003). Between 1996 and 2005, despite doubling Class A drug seizures and convicting record

numbers of key drug suppliers, both the price and availability of cocaine and heroin in England and Wales remained largely unchanged (McSweeney, Turnbull and Hough, 2008). This is still true today. In the year ending March 2022 18,767kg of cocaine and 1,412kg of heroin was seized in the UK (Holland *et al.*, 2023), yet the crack cocaine and heroin markets remain buoyant (Black, 2020).

The recent phenomenon of County Lines, the term coined for moving drug distribution and supply networks from metropolitan cities to provincial towns, has changed the landscape of the UK heroin and crack retail market. Much of this has been driven by the development of technology, specifically mobile phones coupled with the evolution of urban street gangs (Harding, 2020). Mobile phones enable drug dealers to operate a business model, where they work hard to build a large database of drug users who they can then market their products to by sending bulk text messages to offer 'deals', normally on heroin and crack (Harding, 2020). The County Lines model requires an illegal work force that operates similarly to a call centre, where the line holder takes the orders and then dispatches a local dealer to meet with the user to make the exchange (Harding, 2020). A drugs line can be extremely profitable with a single line potentially earning £800k annually (Black, 2020). Consequently, the brand of a Drugs Line and its contacts has real value and is strongly protected by the gangs operating it as they can be vulnerable to both law enforcement and other gangs looking to disrupt or steal their business model (Harding, 2020).

Prior to County Lines, dedicated police drug squads would seek to build complex conspiracy-based investigations against drug dealers through test purchase operations. This is where an undercover police officer, protected by a surveillance team, sought to buy drugs in the open market, requiring at least three 'buys' before the Crown Prosecution Service would authorise a charge following arrest. Although

this led to good evidence and high conviction rates, it was resource and time intensive and therefore used sparingly.

The rise of County Lines has been coupled with an increase in violence and exploitation that has required a renewed focus from law enforcement (Black, 2020). Indeed, the NCA categorise the supply of Class A drugs through the County Line model as a significant national threat (National Crime Agency, 2019). To tackle the County Line business model the MPS instigated Operation ORACHI, which aimed to identify and target active drug lines by applying for and using call data to prosecute drug line holders. The call data of a drugs line often evidences regular 'bulk texts' being sent to significant numbers of phone numbers simultaneously. The content of those texts can be confirmed through an application to the relevant Telecoms Operator or sometimes by simply evidencing the text from the mobile phone of a drug user who has been arrested for an ancillary offence. Algorithms that calculate the cash value of the drugs line based on the pattern of calls and texts have been tested and accepted by UK courts. Detectives then seek to identify who is controlling the drug line phone, often evidencing attribution by obtaining cell site analysis of the suspected drug dealer's 'clean' phone which shows that its movement mirrors the location of the drugs line. Once the evidence is collated the drug dealer is arrested, often without being in physical possession of any illicit commodity. In all but a few cases the drug dealer is charged, convicted, and sentenced to a significant custodial sentence. As of February 2022 the UK government claims to have invested £65 million in County Lines enforcement asserting that between 2019 and 2021 police closed 1,100 lines and made 6,300 arrests (Havard, 2022).

The use of the mobile phone to sell drugs is no longer restricted to County Lines and is prevalent in the London illicit drug markets. A further drug focused operation,

Operation YAMATA was set up in early 2022 adopting the same tactics as Operation ORACHI to pro-actively target the crack cocaine and heroin markets in the London Boroughs of Hackney and Tower Hamlets. To date, Op YAMATA has recorded a 91% arrest to charge ratio of drug dealers with 95% of those charged pleading guilty (MPS, 2023). To achieve this a vast amount of call data is relied upon across the hundreds of drugs lines YAMATA investigated. It is worth noting that to obtain call data there must be a necessary and legitimate policing purpose to any application in line with Investigatory Powers Commissioners Office (IPCO). The data obtained is therefore not uniformed; for one drug line it may only be proportionate to request a few days of call data, whereas for another drug line three months may be justified. Consequently identifying, accessing, collating, and cleaning such a large, complex, and fragmented dataset was a significant challenge.

3.3 Research Design

The key research question associated with this thesis is focused on evaluating the impact that the closing of a drug line may have on its users. This is an area that has not previously been studied in any depth. Consequently, the design employed to support this research undertaking is exploratory and hopes to ascertain the feasibility of conducting more extensive research in this arena.

Whilst this exploratory study makes no claim to causality, it does seek to assess the extent to which the independent variable, in this case the closing of a drug line, affects the dependent variable, the user CCHI score. Descriptive statistics will be used to organise and summarise large amounts of data, making it easier to interpret, analyse and to measure the data's central tendencies, such as the mean, median,

and mode. This thesis does not aim to reach a definitive conclusion or prove a hypothesis. It intends to take an exploratory approach to the extensive datasets at its disposal.

3.4 The YAMATA Database

The Op YAMATA team maintain a database detailing each of their investigations, as of May 2023 there were 348 individual drug lines listed. The database holds key information that this study relies upon. It is maintained and managed daily by a dedicated MPS Analyst, to ensure currency and accuracy. The document holds details of each drug line, including its phone number, reference numbers for any call data applications, the date the investigation began, the dealer and the date of that dealer's arrest, charge, and conviction.

A separate USER tab on the database contains all the unique phone numbers that have responded to a bulk text sent by one of the drug lines being investigated. On receiving call data from a drug line, the YAMATA analyst conducts filtering for any phone number responding to a bulk text from that drug line. Of the 348 drug lines 7,251 individual phone numbers had responded to a bulk text, each of which were consequently categorised as a USER of that drug line. A YAMATA researcher then searched the phone number on an MPS intelligence system called the Integrated Information Platform (IIP). A search of a phone number on IIP will simultaneously search for that number across all MPS systems, including the Crime Report Information System (CRIS), criminal intelligence (CRIMINT), Custody records, Missing person records, and outstanding warrants. These searches resulted in linking the 7,251 phone numbers to 3,614 entries that had a name, ranging from a street name,

other nickname to full names, some with dates of birth, some without. Each of the USER phone numbers was linked to the drugs line that it had responded to. Some had been in contact with multiple drug lines, so their phone number was represented on multiple occasions.

The May 2023 version of this sensitive police database, (following authorisation), was captured and is considered the master record and starting point for this research. To answer the key research questions, it was necessary to set parameters to identify which data required extraction from the spreadsheet. Clearly, to understand the impact of a drug dealer being arrested on the future behaviour of users requires the drug dealer to have been arrested. Indeed, the arrested drug dealer should ideally not be able to return to the drug line or to the wider community where they could continue a relationship with their drug users. Therefore, only drug lines where the drug dealer of that line was arrested between 01/04/2022 and 31/03/2023, and had been arrested, charged, and remanded, and either convicted or awaiting conviction, were selected as suitable subjects of this study. A period of 12 months was optimum as this ensured a sufficiently large sample to minimise anomalies in the data whilst mitigating for any seasonal differences. At the core of this research is the call data of the drug lines that is held on OPTICA, a system that remotely holds the requested call data. So, for a drug line to be suitable for inclusion within the study it must also have an OPTICA reference number thereby indicating that call data exists. Once the spreadsheet was filtered according to these agreed parameters it revealed 91 drug lines that for the purpose of this study will be referred to as 'closed'.

Using Excel tools on the USER tab of the spreadsheet it was possible to identify the unique phone numbers that had been in contact with any of the closed 91 drug lines. This revealed 2752 phone numbers that were deemed as USERS of the 91

lines. Those 2752 numbers were filtered for any that were linked to a person following the searches that had been conducted on IIP. The purpose of identifying an individual attributed to a USER phone number is to enable their details to be adequately searched on police systems to identify any known criminality or victimisation. Consequently, only USERS who had a first and family name as well as a date of birth were matched to a USER phone number. This process identified 983 individuals who were known to be USERS of at least one of the 91 drug lines.

Permission to use the Operation YAMATA data was granted by Commander Paul Brogdan who leads on Specialist Crime for the MPS. Permission was also sought and obtained to use all data from the Digital, Data and Technology Data Office who conducted a Data Protection Impact Assessment (DPIA). The permission was conditional on the material being securely handled and only disseminated in a sanitised form outside of MPS systems. Consequently, each of the 983 known USERS were allocated an anonymised USER number (i.e., USER1 through to USER983). The details of the known USER have been retained on an MPS system. The priority has been to ensure compliance with the Data Protection Act (DPA) and protect covert policing methodology. Whilst also being conscious that some live, and future, court cases may rely upon the call data used in this research and therefore sub judice must be considered.

3.5 Call Data

Call data obtained from a Telecoms Operator arrives with a unique reference assigned by OPTICA, the independent authorising body that processes the call data applications. These references are listed on the YAMATA database with each

representing potentially multiple applications comprising of various types of requests to the relevant Telecoms Operator. With the assistance of an MPS Intelligence Officer, who had access to OPTICA, each of the call data documents were downloaded into a shared folder. This produced 308 individual comma-separated various (CSV) file formatted documents. The analytical tool Cell Site Analysis Suite (CSAS) cleanses, analyses, and maps communication data in a fraction of the time of traditional computing methods. All 308 call data documents required merging and CSAS offered the platform to achieve this in one Excel table. Once the 308 were uploaded to CSAS it produced 1,743,734 lines of data. To support future analysis, it was necessary to export these 1,743,734 lines of data back out on to a suitable Excel platform. Given that Excel will only hold a million lines of data this was completed over four stages. The four excel documents containing the 1,743,734 lines of call data were then filtered for only those lines that contained any of the 2752 USER phone numbers. The data was then further filtered for call data between 1st January 2022 to the last call in the data set on the 19th February 2023. Once completed it was possible to merge the four documents into one Excel table with 538,782 lines of data. The completed table with 538,782 lines was then uploaded back on to CSAS. The result being that the cleaned call data sat in two locations, firstly within an Excel table and secondly on CSAS, both offering different methods and opportunities for future analysis. The 538,782 lines of call data is visualised on the following i2 Chart that illustrates the sheer volume of just one segment of the illicit drugs market, in just two London Boroughs, in a single year.

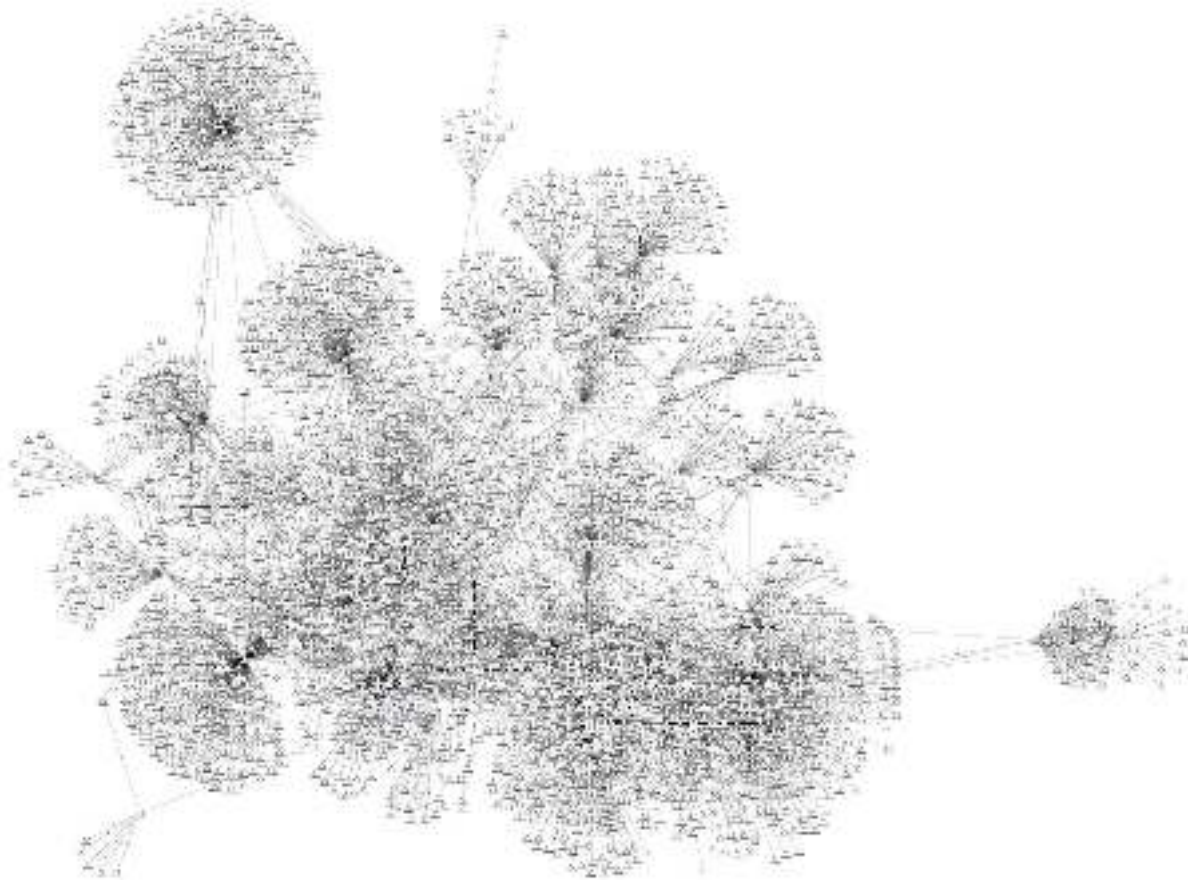


Figure 3 i2 chart of 532,782 call data between the 91 drug lines and the 2,752 USER numbers between 01/01/22 and 19/02/23.

3.6 CRIS Dataset

Of the 2752 USER phone numbers 983 had been attributed to individuals where a first name, family name and date of birth were known. These 983 people are crucial to this study as they offer the opportunity to compare their criminality and victimisation to before and after a drug line is closed. To ensure measurement validity any research should demonstrate that it has measured what it claims to be measuring, and that the means by which the measurement is made is consistent (Ruane, 2005). Here the challenge was to find a measure that could be applied to all 983 USERS which would

capture the harm they generated in a valid and reliable manner. A USER may come to police notice in multiple ways, such as being reported as missing, as the subject of an Intelligence report, for example stating they are engaged in the sex trade, or through hospital admissions. Each of these cases will detail different circumstances, will have been recorded according to different standards, will be verifiable in different ways. Sadly, there is not a mechanism to quantitatively rank or score the harm that each would represent. Crime reports however do offer such an opportunity and mechanism.

Crime Reporting Information System (CRIS) is the MPS tool for recording notifiable offences and registering the suspect and victim details, where known, for every offence. There are recognised recording standards that apply to CRIS with carefully regulated levels of compliance. An advantage of CRIS is that as well as capturing the specific offence it also records the Home Office (HO) classification code. Each HO code has a corresponding Cambridge Crime Harm Index (CCHI) score that has been predetermined through careful allocation of scores based on sentencing guidelines (Sherman, Neyroud and Neyroud, 2016). Regrettably, the HO codes had recently changed, and CRIS has not been updated. Fortunately, this challenge was overcome, and where there were anomalies the principal researcher was fortunate enough to be able to consult Dr Eleanor Neyroud, one of the original authors of the CCHI paper (Sherman, Neyroud and Neyroud, 2016), to assist with calculating the CCHI score.

It was agreed that CRIS held the best data that could be used to measure the victimisation and offending of the 983 known USERS. This study is focusing on those drug lines that were closed within the 365 days period of 01/04/2022 to 31/03/2023. To be sure of being able to measure those CRIS reports that feature a known USER

a three-month search window was added to either side of the year. Consequently, all CRIS reports within the 18-month period of 1st January 2022 to 30th June 2023 containing at least one of the known 983 USERS were collated. This was achieved with the support of an MPS analyst who ran a CRIS Object Search, exporting all CRIS reports held by the MPS within the 18 months on to an Excel spreadsheet. Each CRIS recorded the age and ethnicity of the suspect and victim, as well as the offence details, HO code, the date, time, and location of the offence. Once filtered for the 983 names and dates of birth, 340 known USERS were found to have featured as a suspect or a victim on a total of 993 CRIS reports. An Excel document was created recording each of these 993 crime reports, with columns of the corresponding details of the known USER, status as a Victim or Suspect, date and CCHI score of the offence. The CCHI score column was created using the VLOOKUP and SUM IF formula to match the CCHI with the corresponding HO code. Further tabs were added to this document to collate each of the drug lines and their affiliated users. This Excel document, alongside the cleaned call data that sat on another spreadsheet and on CSAS, became the key datasets for analysis to be undertaken to answer the set research questions.

3.7 Analytical Strategy

With the data extracted, cleaned, and organised the analytical process could be applied to answering the research questions. The key research question can be condensed into two themes. Firstly, whether the closure of a line coincides with a reduction of its USERS phone numbers across the closed drug lines. Secondly, whether the CCHI score or crime count of the known 983 USERS is reduced following the closure of the lines that they had been in contact with.

To approach the first element CSAS was applied to the call data. An algorithm that the YAMATA team had developed to identify phone numbers that had responded to a bulk text was used to breakdown the responses of USERS on a weekly basis. The call data spans 98 individual week commencing (W/C) dates between 5th April 2021 and 20th February 2023. This is exhibited over 14,303 Excel rows in four columns of W/C date, USER number, number of days in that week that the USER responded, and total number of responses in that week. Creation of data pivot tables allowed for identifying the USERS who had been in most contact with the drug lines and for separating the USERS into groups depending on how many drug lines they had been in contact with. Ultimately, the use of CSAS enabled the frequency and volume of USERS phone numbers in the call data to be calculated following drug line closures.

The second part of the key research question related to the harm generated by the known USERS. In the first instance Excel VLOOKUP and IF functions were applied across the relevant spreadsheets to designate each USER an overall CCHI score and crime count. This was further separated for where the USER had been a victim and where they had been a suspect. This enabled pivot tables to be applied to examine how the CCHI score and crime count are distributed across the USERS with percentage formulas also applied.

Imperative to this study is the aim of determining the extent to which the closure of a drugs line, the independent variable, impacts upon the CCHI score or crime count of a USER of that line, the dependent variable. Accordingly, each drug line, its date of closure, and its known USERS were set out on a spreadsheet which included the extrapolated 993 crime reports. By using the VLOOKUP, IF, AVERAGE and SUM formulas across multiple tables on excel the USER of a drug line's PRE and POST closure CCHI score and crime count was mapped for the 18-month period. This

captured every one of the 993 crimes from the CRIS dataset but in doing so created a wide variance in the number of days before and after a closure date of an individual drug line. To eradicate the variance issue, the same analytical techniques were applied to 30, 60, and 90 days before and after a drug line closure. It was also possible to separate the victim and suspect crime reports. However, despite accounting for different time parameters and disaggregating the victim and suspect crimes, threats to the validity of the study remain.

3.8 Data Limitations

The core of the datasets of this study originates from either Call Data or CRIS reports. Both have limitations. As alluded to above, the call data is inconsistent and fragmented, spanning 98 weeks over 308 applications each covering unique time periods. This is due to the nature of the investigations and the specific necessity and proportionality that can be applied to each line. The study is limited to the data obtained and is thus merely a snapshot of the drug market; it presents a partial view. Another limitation of the call data is the acceptance that little is known about the USER phone numbers. A single drug user may be the operator of multiple USER numbers. They may hold these phone numbers simultaneously or have simply changed numbers. Equally possible is that a USER phone number is purchasing for many other drug users whose phone numbers will never appear in the call data despite them being the end user of the commodity. This impacts on confidence in any results.

That reported crime is a notoriously unreliable measure of total crime is well established in criminology. A 1970s study conducted in the US, estimated that unreported crime was up to three times as large as the reported crime (Myers, 1980).

The 2022 crime survey for England and Wales claims that four in ten crimes are unreported (ONS, 2022). Therefore, it is reasonable to assume that the 983 identified USERS may have generated far more harm than that which is reported. Furthermore, CRIS only captures offences in London. Had one of the 983 USERS committed offences outside of the Capital these would not have been captured. Unreported crime and missing data are a concern but even the data available may be flawed. Although it was stipulated that only names and date of birth would be used these can be recorded incorrectly and may lead to missing CRIS reports due to anomalies in the name or date of birth. Being attributed victim status on a CRIS report is normally verifiable on the account of the victim, in most cases, being present at the time of reporting. Whereas being named a suspect on CRIS has a lower bar for entry. It may be that a suspect has been falsely or maliciously named, or the evidence is so weak that the suspect is never arrested. Moreover, a victim and suspect can be recorded on a CRIS where there is no crime, the CRIS having been created solely to inform future risk assessments involving that victim or suspect. An example of this is when a CRIS is recorded as a 'Non-Crime Domestic' as a means of capturing an incident of potential domestic abuse but where police find no evidence. Although this would be recorded under crime count, under CCHI it would score zero. A further limitation is that the CRIS reports can be double counted. This is because a USER that is in contact with multiple lines, could feature on a CRIS prior to the closure of one drug line, but after the closure of another drug line. Consequently, data analysis struggles to affirm strong conclusions around overall reduction in crime harm or count due to this double counting phenomenon.

3.9 Conclusion

This chapter has presented the methodology, descriptive statistics, and analysis that have been applied to answer the research questions. An exploration of the operational settings has provided the basis for understanding the drugs market and policing methodology that the fundamental OP YAMATA spreadsheet originates from. The two key datasets that this study relies upon are the call data and CRIS reports and how their collation, cleaning and analysis has been explained. The use of Excel tools, frequency, summary tables, and CSAS, has been essential in analysing the datasets. Despite the methodology used seeking to ensure the internal validity of the study, a range of limitations have been highlighted. Where these can be mitigated, they have been. Finally, although statistical significance is important, it is identifying and highlighting the effect size that this study prioritises and focuses on (Sherman, 2023). The findings resulting from the analysis are now imparted and explored.

CHAPTER 4: FINDINGS

4.1 Introduction

This chapter aims to present the findings in a comprehensible and relevant manner, ensuring that each finding is clearly linked to a research question. The key research question has been split into two components. The first part will focus on the USER phone numbers and whether their presence in the call data changes following a Drug Line closure. The second element will consider the 983 known USERS and their respective CCHI scores. This will include scrutinising whether those USERS who sustain more contact with a drugs line and/or contact with multiple drug lines have higher CCHI scores. This will develop into the analysis looking at how the CCHI of USERS of a line differ at 30, 60, and 90 days before a Drugs Line is closed, compared to the same period afterwards. Finally, the analysis will explore whether the closure of a line corresponds with any change in the crime types of the CRIS reports that the USERS feature on.

4.2 Key Research Question Part 1

- 1. Does the arrest of drug dealers in one Borough Command Unit correspond to any reduction in the presence of a USER's phone number in the local drugs market?**

This has two related sub questions:

- 1a. Applying the USER phone number as the unit of analysis, what was the daily number of appearances of a USER's phone number in the phone records of all the drug dealers (lines) in 2022?**

CSAS was used to calculate how many days in each week an individual USER responded to a bulk text. This found that the 2752 USER numbers contacted a drug line 169,706 times, incorporating 48,869 individual days.

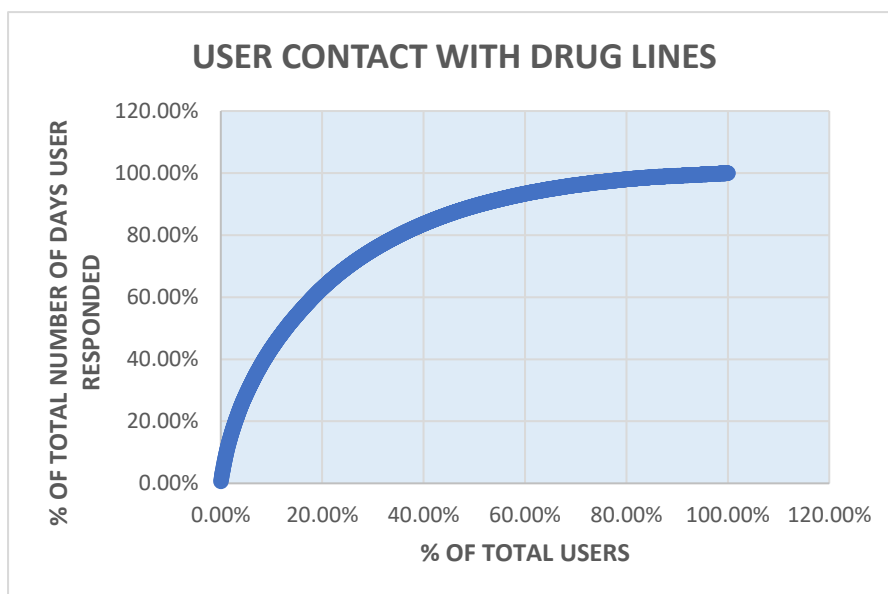


Figure 4 User Contact with Drug Lines

The chart, detailed above in Figure 4, plots the percentage of USERS that are responsible for the most contact with a drug line. Contact is measured by the number of days a given USER responded to a drug line bulk text. This shows that 83% of total contact between USERS and drug lines was performed by just 40% of the 2752 USERS.

1b. To what extent does the appearance of a USER phone number in the call data of the drug lines change from before to after the closure of each drug line?

Results reveal that 80% of USER phone numbers only ever contacted one drug line before and after the closure of that line. 15% contact two drug lines, and 4% have had some contact with three. Therefore, 99% of the 2750 USERS are in contact with three or fewer drug lines. This is illustrated below in Figure 5.

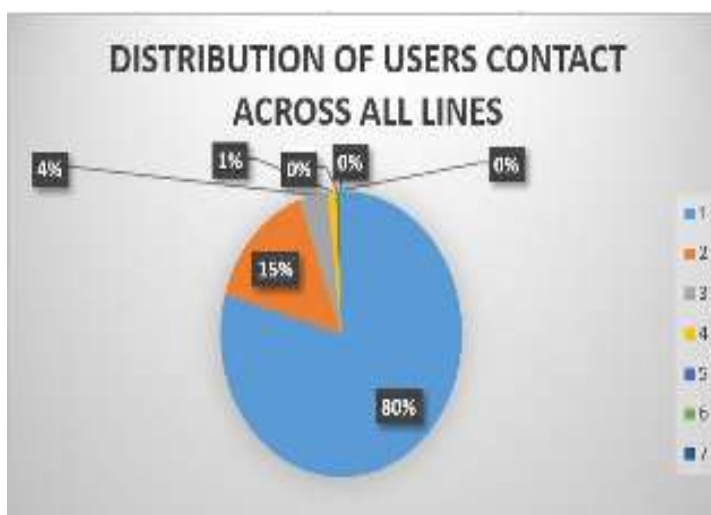


Figure 5 Distribution of Users Contact across all Lines

Figure 6 below details the length of time that a USER phone number is in the retrieved call data. This indicates that the longer the USER number is in the data the more likely it may be that it will be captured within the wider drug line market.

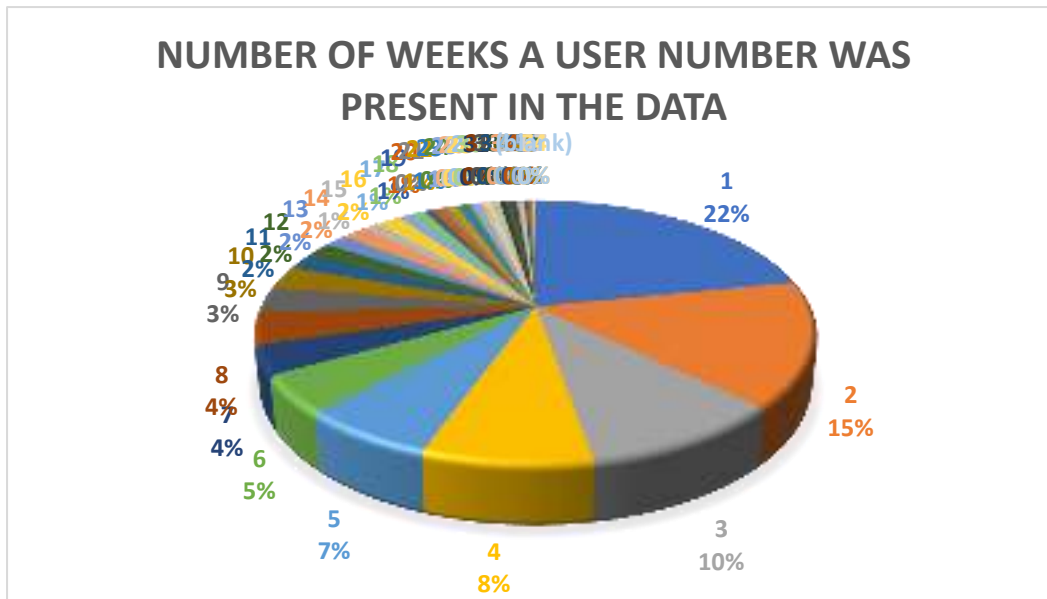


Figure 6 Number of Weeks a User Number was present in the Data

This pie chart details the number of weeks each of the 2752 USER phone numbers featured in any of the circa 500,000 lines of call data. As can be seen 22% only appeared for one week or less, 15% for two weeks, 10% for three weeks, 8% for four weeks, 7% for 5 weeks, 5% for 6 weeks, and 4% for 8 weeks.

4.3 Key Research Question Part 2

- 2. Does the arrest of drug dealers in one Borough Command Unit correspond to any reduction in the Cambridge Crime Harm Index value of the crimes or victimisation of the USERS.**

This has three sub questions:

2a. Employing the USER as the unit of analysis, with USER's name and date of birth, what is the total CCHI history of each customer across all offence types between 01/01/2022 and 30/06/2023?

The 983 known users were searched through CRIS between 01/01/2022 to 30/06/2023 revealing 993 CRIS reports of interest. 340 USERS, 35% of the total known USERS, featured on at least one of the 993 CRIS reports. The USER was a suspect in 535 cases, and a victim in 474 CRIS reports. Where the USER had been a suspect the CCHI score was 43,756, and where the USER had been a victim it was 46,200.5. The combined total CCHI score of was 89,956.50. A murder scores 5,475 on the CCHI, so the total generated USER harm is equivalent to almost 17 murders.

As can be seen in Table 1, the harm caused and suffered is almost equal.

Table 1 Suspect and Victim Harm and Count Split

Type	Harm (CCHI)	Harm %	Count	Count %
Suspect	43756	49%	535	54%
Victim	46200.5	51%	474	48%
Total	89956.5		993	

Figure 7 below illustrates the cumulative CCHI and crime count. A clear power few of the 983 USERS responsible for most harm is visible. This is true of both crime count and CCHI Harm but is far more pronounced in relation to harm.

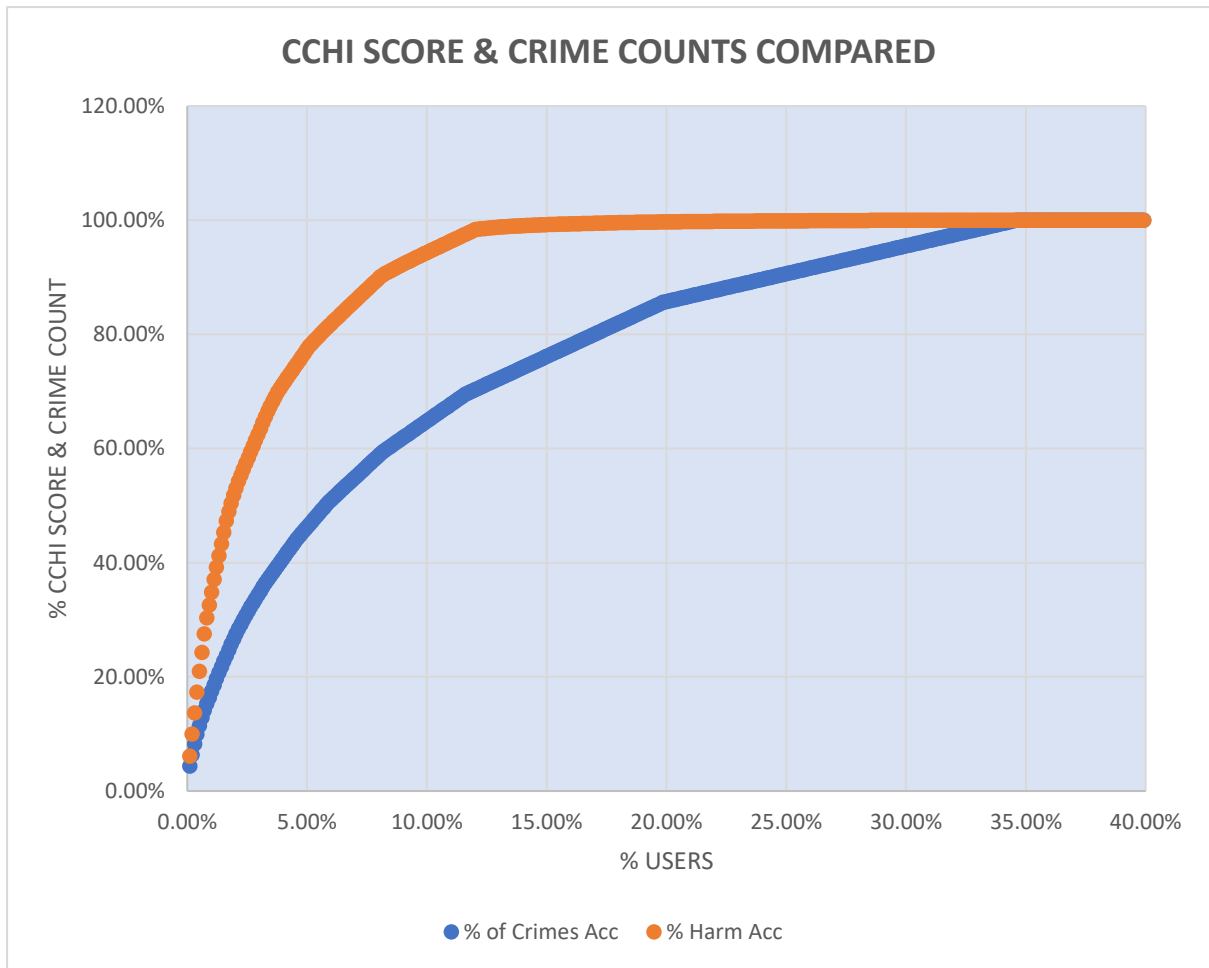


Figure 7 CCHI Score and Crime Counts Compared

In Figure 7 above, the **orange** line represents the CCHI Score, where 10.39% of USERS are responsible for 95.09% of the total harm. The **blue** line represents crime count where a significantly larger 29.53% of USERS are responsible for 94.94% of the total crime count. The power few of those causing the most harm as suspects creates the strongest power curve as exhibited below in Figure 8.

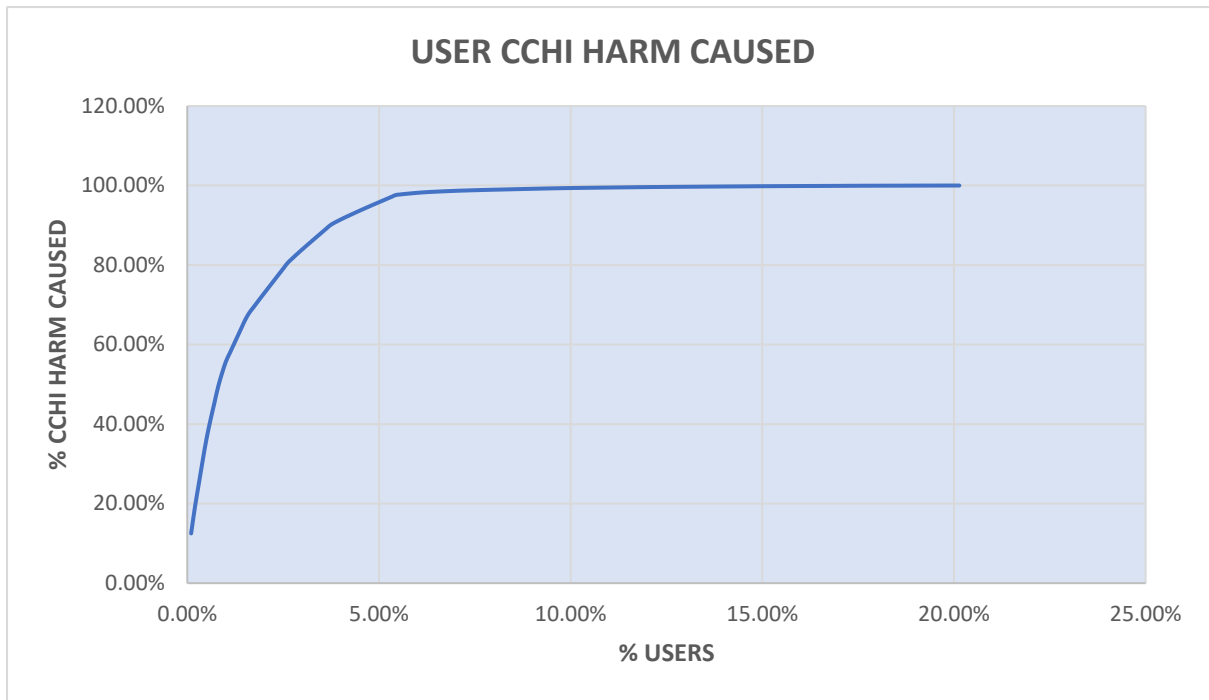


Figure 8 User CCHI Harm Caused

Here 96% of harm is caused by just 5% of the 983 known USERS. With the CCHI score of every USER calculated and a distinct power few identified, it is possible to move on to the next sub question.

2b. Are those USERS who generate the most harm the same as those USERS who are in most contact with the drug lines?

The scatter charts below, Figure 9 and Figure 10, plot the CCHI score of each USER and the number of days that USER had contacted a drug line. If a USER has accumulated a high CCHI score and has had a large amount of contact with drug lines, this will be captured in the top right-hand corner of the scatter graph. The suspect harm and victim harm have been plotted separately.

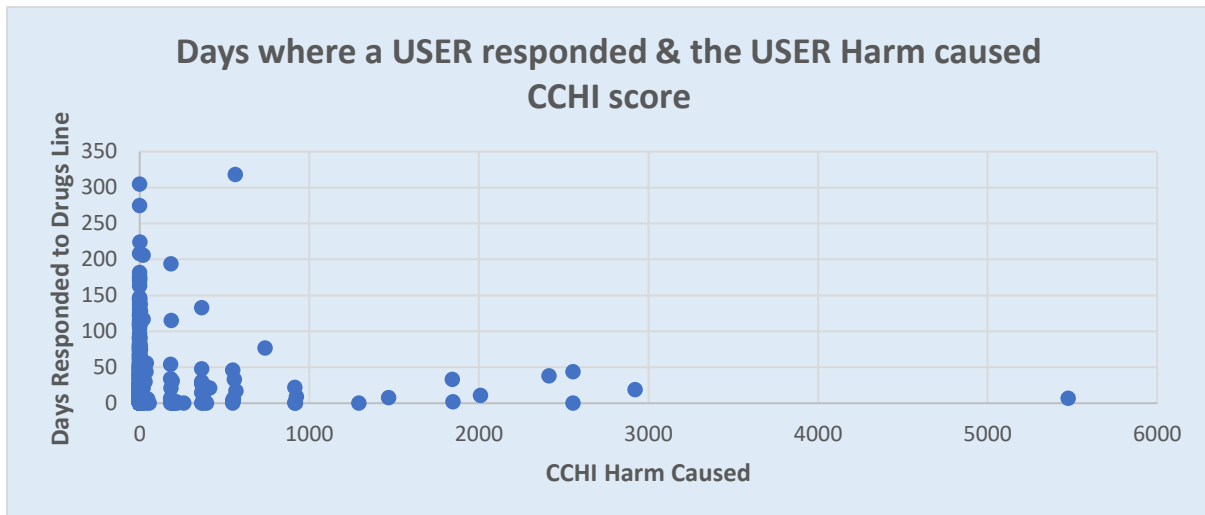


Figure 9 Days where a User responded combined with Suspect User CCHI Score

The outlier high harm USER who has a CCHI score of 5475 only responded to a drug line on seven individual days. Whereas the highest contact USER, who responded on 318 days, only caused a CCHI score of 563.5. So, the USERS who cause the most harm are NOT the same as those USERS who are in most contact with the drug lines.

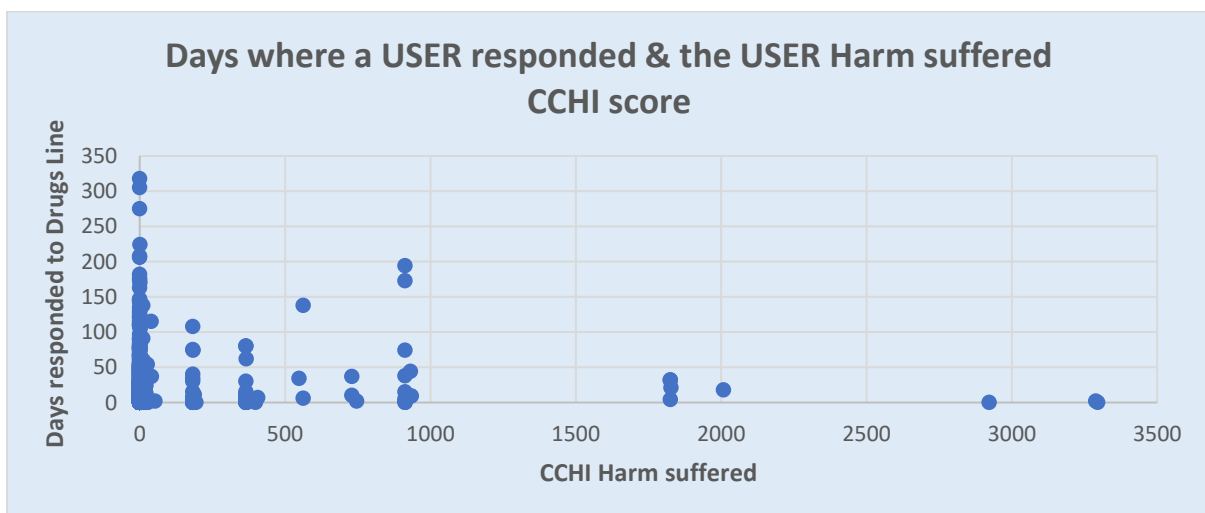


Figure 10 Days where User responded combined with Victim User Harm

Figure 10 illustrates a similar pattern is exhibited by USERS suffering harm.

Those USERS who are in contact with multiple lines do not generate more harm than the USERS who are in contact with a single drug line.

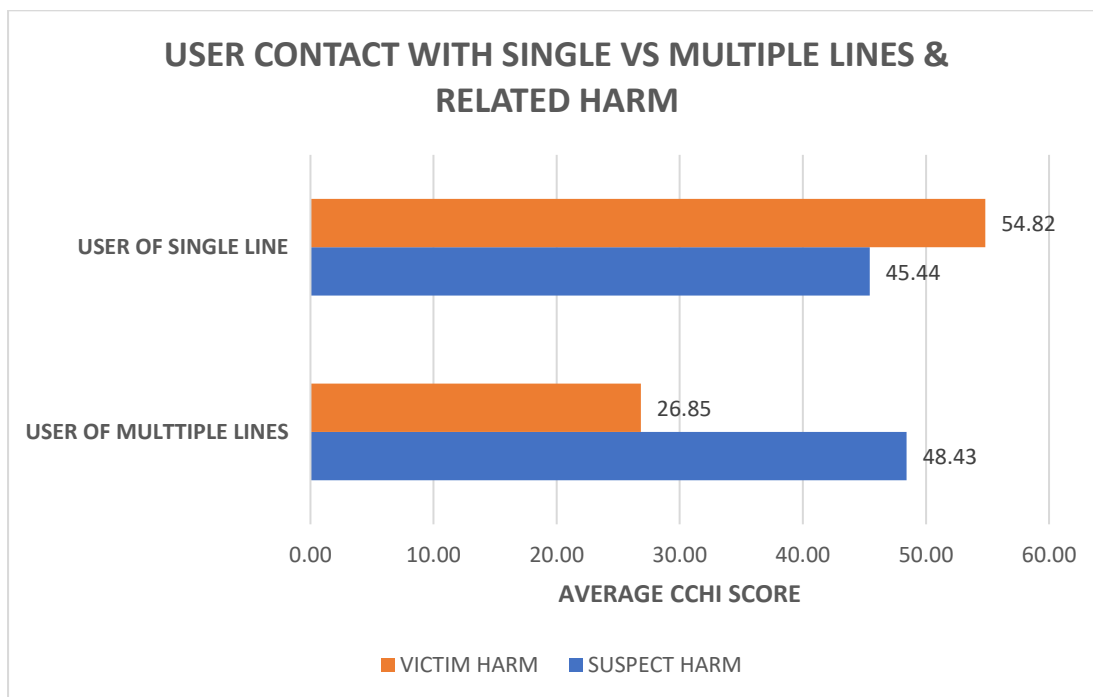


Figure 11 User Contact with Single Vs Multiple lines and CCHI Scores

Here Figure 11 details the average cumulative CCHI score of a USER. Where a known USER has been in contact with just one drug line, they have an overall average CCHI score of 100.26. This is split into an average CCHI of 54.82 for victim harm, and 45.44 for suspect harm. The multiple line USERS generate a smaller average CCHI tally of 75.28. This is broken down into 26.85 as Victim Harm, and 48.43 as Suspect Harm.

Findings reveal that the USERS most in contact with the drug dealers are, in the main, not the same as those USERS who are coming to notice for recorded crime.

2c. To what extent does the USER CCHI score for victimization and offending change from the 30, 60, and 90 days before to the 30, 60, and 90 days after

the arrest of each dealer who had been in contact with the USER's phone numbers?

The 340 known USERS who featured on a crime report were in contact with 58 of the drugs lines. Each of the 58 drug lines have been independently analysed, with the CRIS records of the USERS of each line separated into before and after the closure date. The three charts below detail the findings for when this is filtered for the 30, 60, and 90 days and for the suspect and victim roles of the USER.

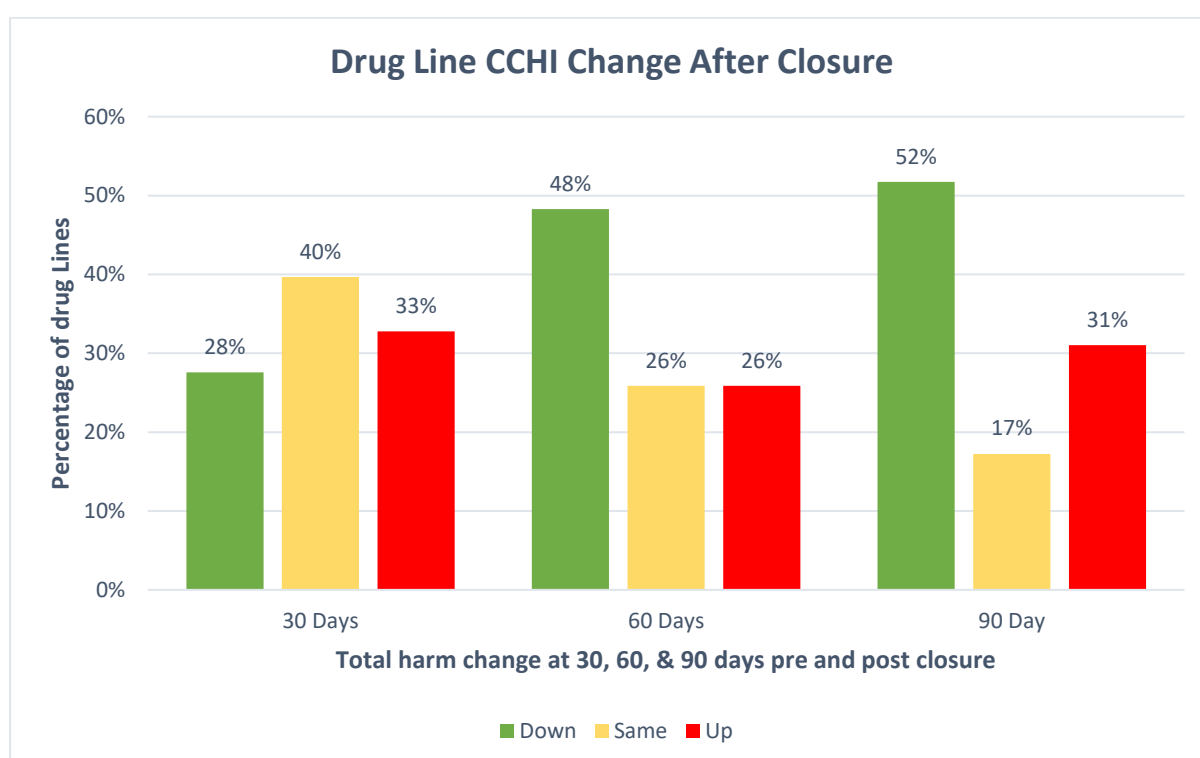


Figure 12 Drug Line CCHI Change After Closure

The above chart, Figure 12, details what percentage of drug lines have seen their USER CCHI score increase, reduce, or remain unchanged by comparing the 30, 60, or 90 days before a closure with the 30, 60, or 90 days after the closure. **GREEN** represents the percentage of the 58 drug lines that saw an overall reduction in their

USER cohort CCHI score. **YELLOW** is the number that stayed the same. **RED** are those drug lines that saw an increase in their USER's CCHI score over the relevant period.

The two charts below, Figure 13 and Figure 14, operate the same but detail separately where the USER has caused the harm as a Suspect, and where the USER suffered the harm as a victim.

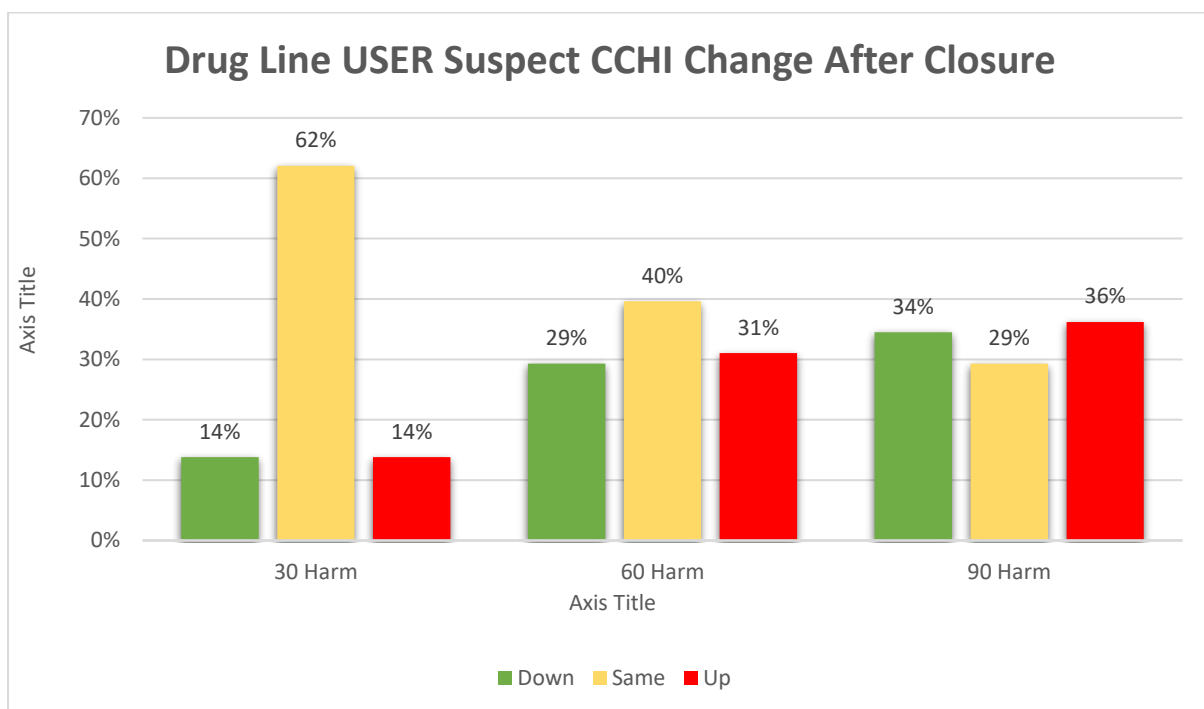


Figure 13 Drug Line User Suspect CCHI Change After Closure

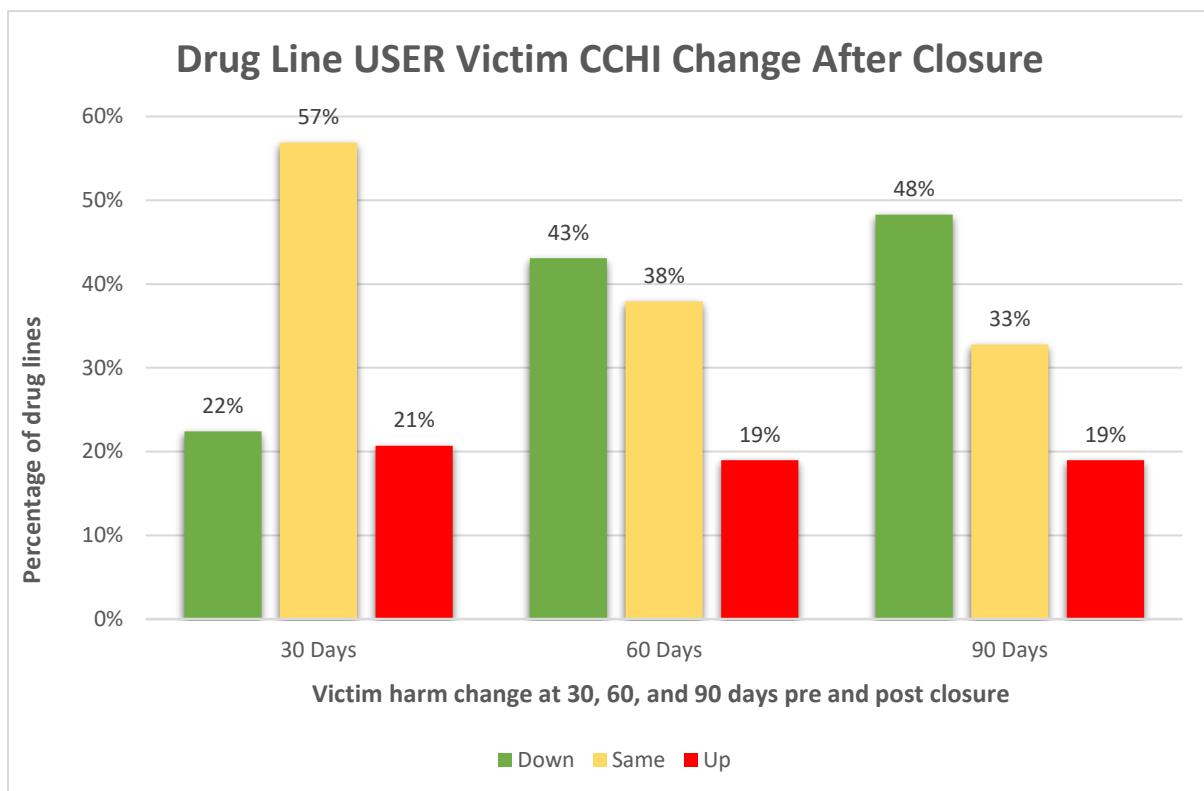


Figure 14 Drug Line User Victim CCHI Change After Closure

As can be seen above the largest variances between reduction in CCHI and increase in CCHI is at the 90-day point for VICTIM harm only. Whereas SUSPECT only harm as illustrated in Figure 13 shows that the changes at 90 days are equally spread.

The findings recorded below in Figure 15, Figure 16 and Figure 17 solely detail the CCHI score for the 90 days before and after the closure of a drugs line. They each take an in-depth dive into the changes at the 90-day mark for cumulative, suspect and victim harm.

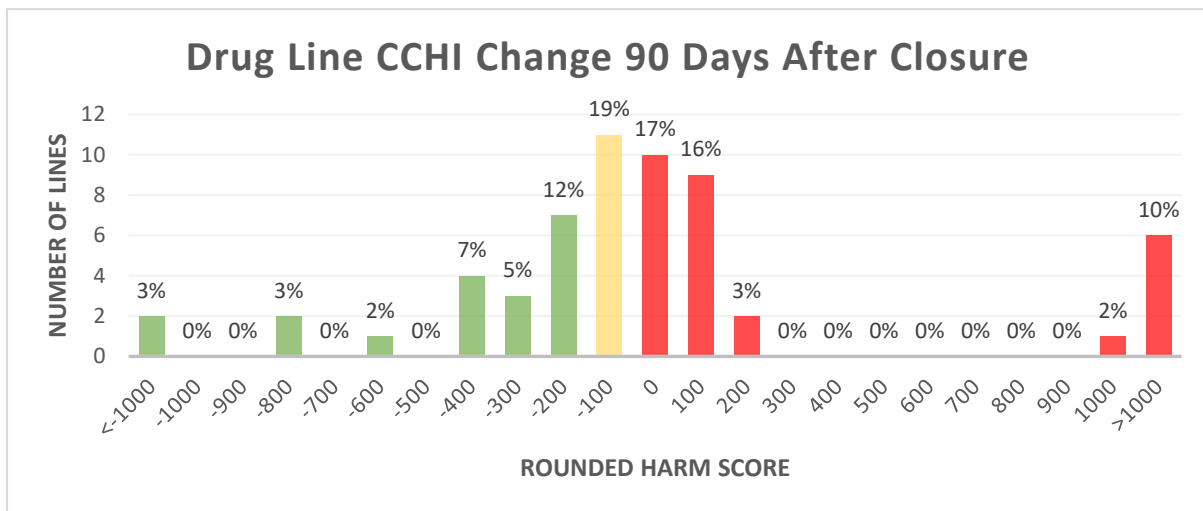


Figure 15 Drug Line CCHI Change 90 Days After Closure

Figure 15 is a more detailed look at the CCHI score changes from 90 days before and after a drug closure (as originally displayed in Figure 12). The X axis denotes the rounded CCHI score, with each point capturing a 100 CCHI score bandwidth. As in Figure 12 the yellow bar denotes the 19% of drug lines that had an unchanged CCHI score. The left side, with the minus CCHI scores, represent those lines that saw a reduction, the right side denotes the increases in CCHI. What this chart attempts to show is the distribution of the level of harm either reduced or increased. 12% of the lines that experienced a reduction in CCHI score of their USERS did so by reducing that CCHI harm score between 200 and 300. This chart details that only 3% of the lines that saw a reduction experienced a fall of over 1000 CCHI score. This contrasts with the lines that increased CCHI, where 10% of the lines witnessed an increase over a 1000 CCHI score.

The following two charts shown at Figure 16 and Figure 17 focus firstly just on USER Suspect harm and then secondly only USER Victim harm.

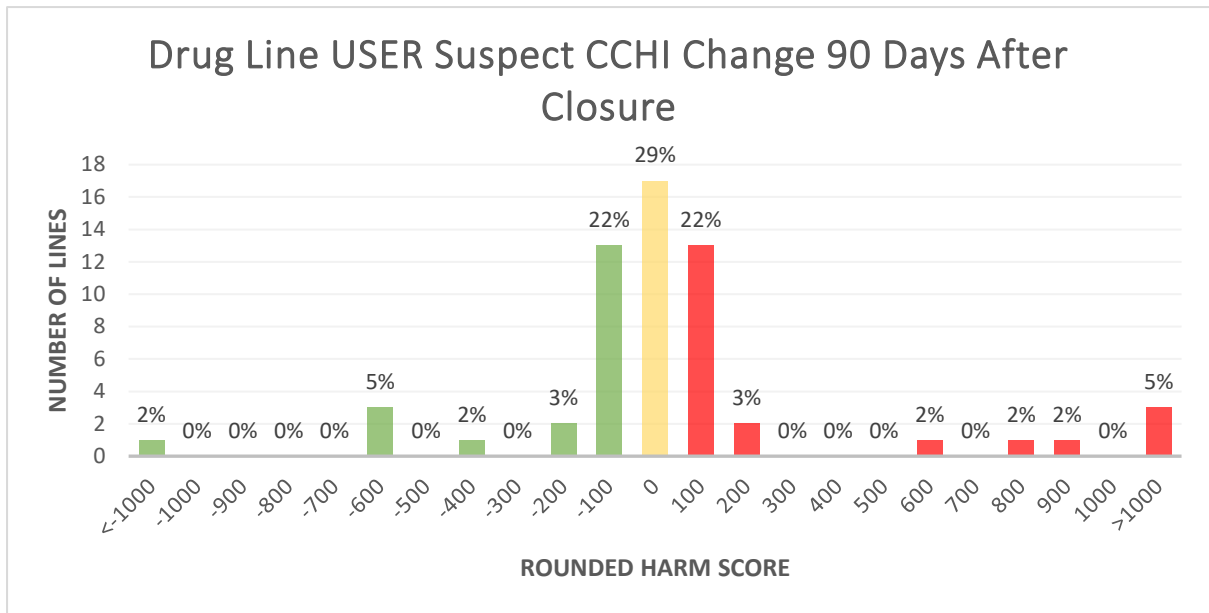


Figure 16 Drug Line User Suspect CCHI Change 90 Days After Closure

Figure 16 shows that the drug lines that experienced a reduction in their Suspect USERS CCHI score are matched by an almost identical increase from the drug lines that saw an increase. This contrasts with Figure 17 below which shows a distinct difference between the Victim USER CCHI score 90 days before a drugs line closure in comparison with 90 days after.

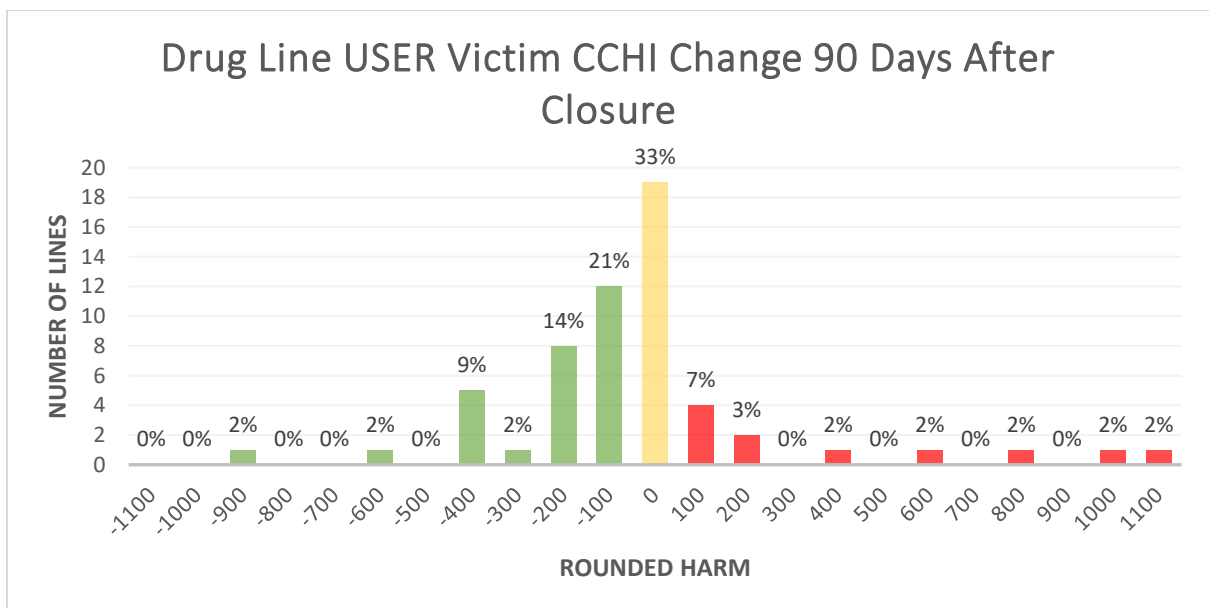


Figure 17 Drug Line USER Victim CCHI Change 90 Days After Closure

Figure 17 shows the 48% of drug lines in green which saw a reduction with almost all the harm reduced being concentrated in less than a 500 CCHI score. The 19% of drug lines that had an increase, here in red, also indicates that much of that harm is contained in less than a count of 200 CCHI.

Although the focus of these findings is focused on CCHI, in line with the research questions, crime count was also collated and analysed. A presentation of the change in crime counts and CCHI of USERS of the 58 drug lines 90 days after a drug line closure compared to 90 days before is presented in the below four quadrant charts. Each drug line is represented as a bubble; the larger the bubble the more USERS that drug line has. The first chart, Figure 18, is simply an illustration of what participation in each quadrant means. The three further charts are for total USER crime and harm, Suspect only, and Victim only crime and harm, respectively.

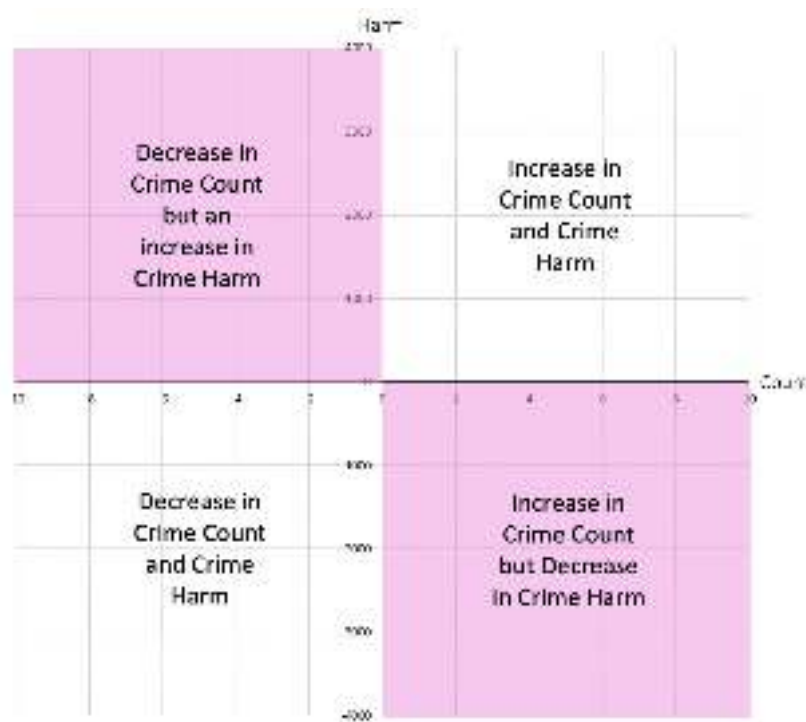


Figure 18 Illustration of Quadrant Chart Meaning

CCHI Score and Crime Count of each Drug Line 90 days after Closure

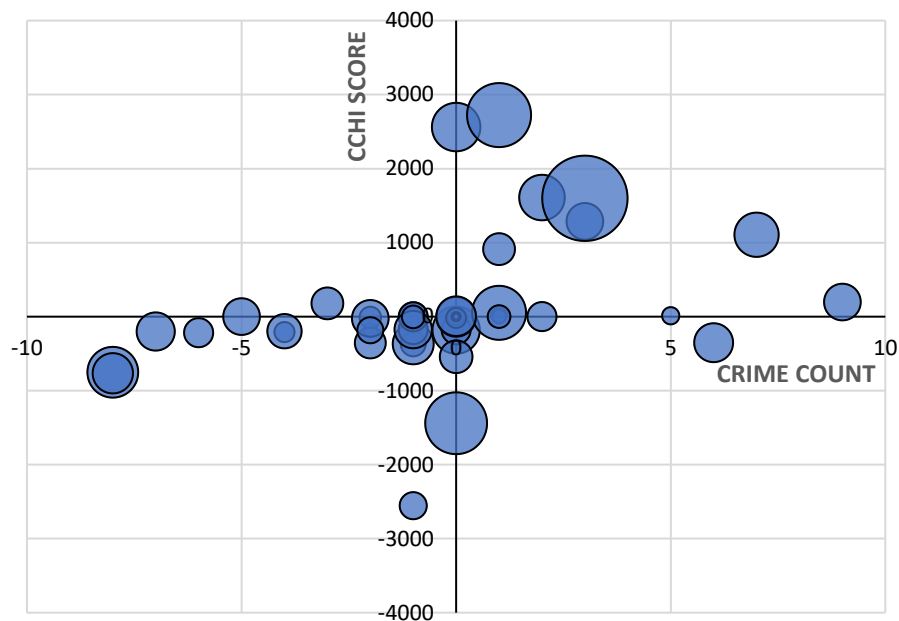


Figure 19 CCHI Score and Crime Count of each Drug Line

Here the overall crime-count and CCHI score is evenly distributed between the bottom left and top right quadrants. This illustration shows the marginal movements of the overall CCHI scores and crime-counts following the closing of a drug line. The decrease in crime-count and CCHI is evenly matched by an increase in crime count and CCHI score.

However, as can be seen below in Figure 20, when only USER Suspect harm is plotted there is a move towards the quadrant that indicates an increase in crime count and crime harm.

SUSPECT USER CCHI Score and Crime Count 90 Days After Closure

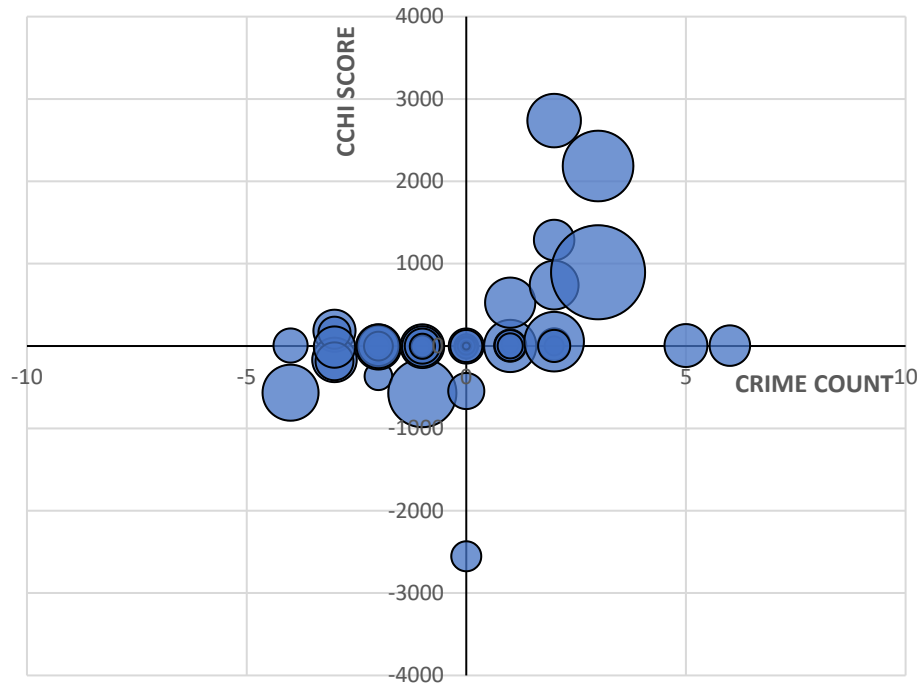


Figure 20 User Suspect CCHI Score and Crime Count 90 Days After Closure

VICTIM USER CCHI Score and Crime Count 90 Days After Closure

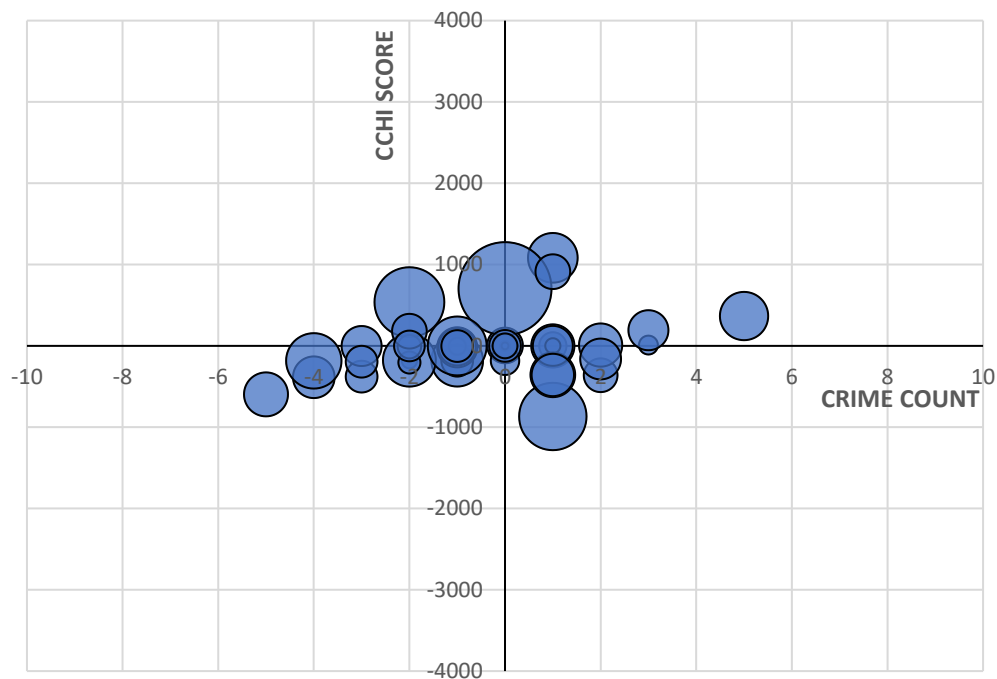


Figure 21 User Victim CCHI Score and Crime Count 90 Days After Closure

The opposite is true when plotted solely for USER Victim harm. Figure 21 shows most of the bubbles falling into the bottom left quadrant. This indicates a decrease in both USER Victim CCHI harm and USER Victim crime-counts of harm.

3. To what extent do the crime types that USERS suffer or perpetrate change following the arrest of their drug dealer?

There is a broad range of offences committed and suffered by the known USERS. The below findings focus on when a USER was a VICTIM only, as this is where the differences are largest. Within the 90-day period before the closure of a drugs line USERS featured as a Victim on 116 CRIS reports covering a range of 25 different offence types. In the following 90 days those USERS featured on 98 CRIS

reports across 22 separate offence categories. Across the whole 180-day period 30 separate offence types were committed.

Table 2 VICTIM Offence Types and Frequency for 90 Days Pre and Post Closure

Count of Type	Column Labels		
Row Labels	PRE	Grand Total	
Sex. Involving	31	23	54
ABH	13	18	31
Common Assault	9	17	26
Other theft	8	11	19
Harassment	5	6	11
Robbery	4	5	9
Burg Res	2	5	7
Theft Person	2	4	6
Crime Dam U 500	3	3	6
Altery	2	3	5
Crime Dam U 500	2	3	5
Send Letters	4		4
Other Offence	2	2	4
Unsuspect Death	2	1	3
Theft small		2	2
Alt Burg Res	1	1	2
Theft from M/V		2	2
Theft other veh	1	1	2
Handling		2	2
Pub Order S 5	1	1	2
GDH/Wound	2		2
Pub Order S 4	1	1	2
Shoplift < £200		1	1
Bladed Air		1	1
ss4D RTA 2008	1		1
Rape/M O 15		1	1
Threat to kill		1	1
Requiditor		1	1
St Using Drive	1		1
Fraud Duty Tax	1		1
Grand Total	98	106	204

Table 2 above sets out each crime type and the number of times a USER was a victim of that crime 90 days before and 90 days after the drug line is closed. A USER was a victim of common assault 17 times before and 9 times after, ABH 18 before and 13 after. Theft, robbery, and burglary all show decreases post closure.

The offences have been placed into one of six distinct categories: Domestic, Public Order, Sex Crime, Assault, Theft and Burglary, and Miscellaneous. The change between categories is illustrated in Figure 22 below.

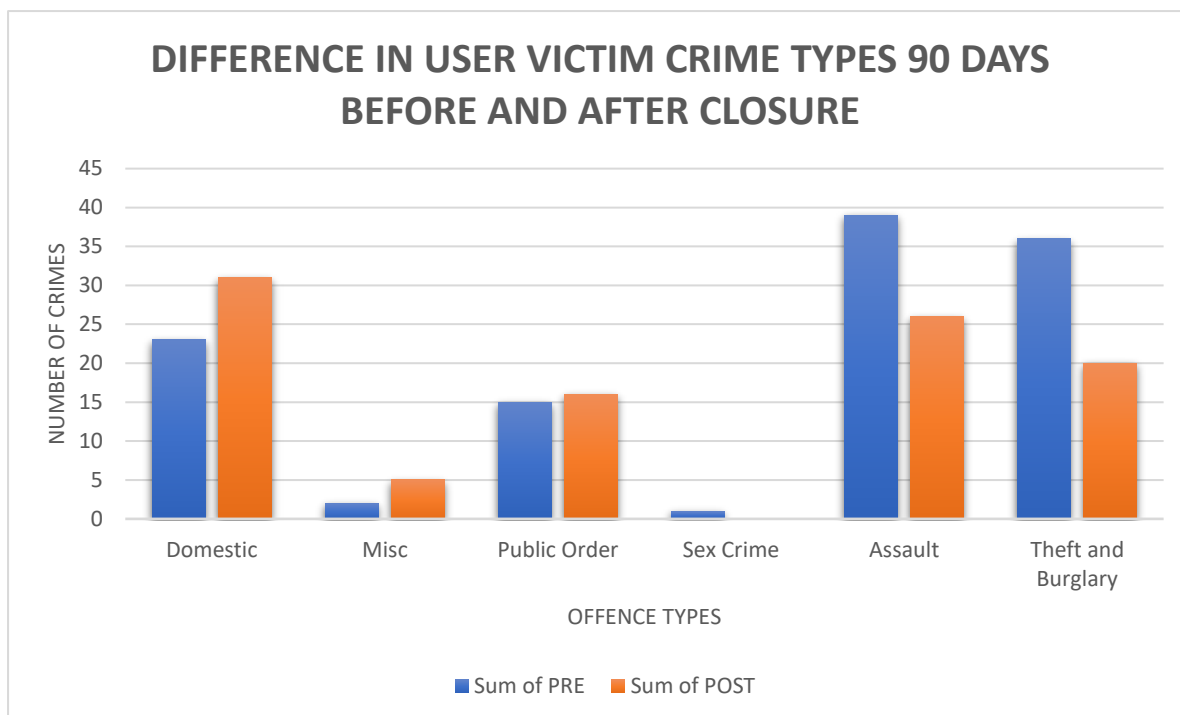


Figure 22 Difference in User Victim Crime Types 90 Days Before and After Closure

There is a clear reduction in victimisation of USERS for Assault offences and Theft related offences. There does appear to be an increase in USERS becoming a victim of domestic incidents. There is a slight rise in public order and miscellaneous offences, although these are marginal.

4.4 Conclusion

This chapter has set out the findings that are relevant to each research question. It has answered the full key research question of: Does the arrest of drug dealers in one Borough Command Unit correspond to any reduction in the presence of a USER's phone number in the local drugs market, or to the Cambridge Crime Harm Index value of the crimes or victimisation of the USERS?

In summary the findings show a reduction in both the presence of USER phone numbers, and a reduction in USER CCHI victimisation scores, following the arrest of a drug dealer and the cessation of their drug line. 80% of USER numbers only appear

in the call data of a single drug line. The analysis tends to suggest that in the 90 days following a drug line closure USERS are less likely to suffer harm as victims, especially of theft and assault categories of offences.

To understand the potential of these findings requires a full discussion. The following chapter attempts to do just that and will approach the wider implications of this research.

CHAPTER 5: DISCUSSION

5.1 Introduction

This chapter will highlight and reflect upon the six main findings presented in the previous chapter. It will explore how the findings compliment and contrast with previous studies, and where this study adds to the existing literature.

The potential policy implications will be set out and discussed, highlighting the opportunities based on the findings to positively influence both the MPS and NPCC drug strategy. In particular this section will examine which policing and partner agency activities could be modified, supported, ceased, or instigated and where the MPS and NPCC should gravitate. This chapter will also explore the research implications, highlighting the gaps and opportunities that potential research could fill and exploit to develop and mature these findings.

Finally, the limitations and the threats to the external and internal validity of this exploratory study will be considered, exposing the design flaws and numerous competing factors that may impact upon the findings of this research. With an emphasis on replicating this study in different operational settings with disparate USER demographics to ascertain the verity of the findings presented in this thesis.

5.2 Main Findings

5.2.1 Finding One: Power Few of USERS Generate Most Harm

340 (35%) of the 983 identified USERS featured on CRIS in an 18-month window. Unsurprisingly this is far higher than the 15% that would be expected from 983 average members of the public (ONS, 2023), thus adding weight to the existing body of research that links crime and drug use (Pierce *et al.*, 2017). More fundamentally, the finding that just 10% of known USERS represent 90% of the accumulated CCHI score corroborates the bulk of previous crime harm index-based studies that establish a clear power few of victims and offenders (Dudfield *et al.*, 2017). When crime count is applied a much larger 33% of users are responsible for 90% of the CRIS reports. This is important as the use of harm indexes is still relatively novel within the criminal justice arena. This study adds to the growing evidence that calculating crime harm, rather than counting crimes or simply relying on the subjective professional judgement of front-line officers, is more effective in determining where to target finite resources to the areas of most harm. Other studies concentrating on drug users' harm tend to be interview or survey based rather than using a harm index such as the CCHI (Bond *et al.*, 2014). Albeit, a Home Office review (2005) did use a drug harm index which collated data from 19 indices, including health impacts, community harm, and used the British Crime Survey rather than a crime recording tool such as CRIS to measure crime (MacDonald *et al.*, 2005). This thesis is seemingly the first research to adopt the CCHI to score drug USER harm in a relatively small geographical area. The value of this is demonstrated in the power curve depicted in Figure 8 which reveals that 5% of USERS are responsible for 95% of suspect harm.

Policy Implication: Target those USERS committing most crime and suffering most crime. Through prosecution or as part of a wider prevent strategy to support them away from drugs and crime.

5.2.2 Finding Two: The USERS Most in Contact with Drug Lines are not the same USERS who Generate the Most Harm

The research revealed that 2752 USERS contacted a drug line a total of 169,706 times, with some USERS in contact numerous times in a single day. It is impossible to know, without recourse to qualitative approaches, if the reason for each contact was to arrange collection or to order more heroin or crack cocaine. For consistency, each day a user contacted a drugs line was treated as one purchase. The 2752 USERS contacted a drug line on 48,869 individual days. A minority of 40% of USERS contacted a drug line on 83% of the 48,869 days. Whether 40% constitutes a true power few is debatable.

The hypothesis, nonetheless, was that these 40% of USERS would include the 10% power few who feature on CRIS 90% of the time. However, this was not the case; there is no relationship between frequency of contact and recorded harm on CRIS. Although this feels counter intuitive, it is not surprising as research consistently shows that a drug user funds their habit by engaging in drug dealing, theft, or sex work (Bretteville-Jensen and Sutton, 1996), most of which is unlikely to be captured on CRIS. It is possible that many of the non-power few 90% are funding their drug use through drug dealing. This would explain their high frequency of calls to drug lines and their absence on CRIS as dealing to other users may reduce their need to commit crime. Should this be true, and USERS are committing less crime due to being

employed as drug runners, any police disruption could displace USERS from drug running and direct them towards acquisitive crime. It is therefore important for policy decision makers to contemplate this potential unintended consequence. Furthermore, research is required to test this potential phenomenon.

Prostitution is unlikely to be highlighted on CRIS, as USERS involvement in this may feature on a criminal intelligence report but more likely it will simply be unreported. This study did not analyse the characteristics such as gender or race of the USERS, however further research may quickly identify those more likely to be involved in sex work. This may offer practical opportunities to safeguard vulnerable individuals.

In 2022 only 4 in 10 crimes in the UK were reported (ONS, 2022). Furthermore, 36.4% of those crimes that were reported had no suspect identified; in the case of theft crime reports, 72% were closed without a named suspect in the year ending March 2022 (ONS, 2023). A Norwegian study estimated that 23% of drug use was funded through theft (Bretteville-Jensen and Sutton, 1996). That many of the USERS could be funding their drug use through unreported or undetected theft feels a distinct possibility. Acquisitive crime has increased over recent years and there is a perception that the police are not taking this seriously which is contributing to a loss of trust and confidence in policing (Brown and Hobbs, 2023). This study has identified 983 local users who feature across 993 crime reports, of which 281 are theft related. Simple analysis may identify a power few of theft-related offenders and offer opportunities to reduce acquisitive crime, thereby improving satisfaction and trust levels in the police. What is clear though is that any targeting approach should bear this in mind that those USERS who are in most contact with dealers are not necessarily those generating the most harm.

Policy Implication: Use data to identify vulnerable sex workers for early intervention.

Policy Implication: Use data to identify power few of those committing theft.

5.2.3 Finding Three: 80% of USERS only ever Contact One Drug Line

Once a drug line was closed 80% of that line's USER numbers are not seen again in the call data of any of the 91 lines. It seems very unlikely that those 80% have stopped purchasing illicit drugs. Research in the US suggests that closing an online illicit drugs market corresponds with a two week increase in demand in open street drug markets (Zambiasi, 2022). Perhaps the reverse effect is seen here and some of the users have moved into the online space. Alternatively, maybe some of the 80% of USERS have simply changed phone numbers fearing attention from law enforcement. Deterrence theory states that a rational actor weighs up the benefit of the crime against the certainty, severity, and celerity of punishment, with certainty of apprehension being the key factor (Paternoster, 2019). Therefore, the arrest of a drug dealer and subsequent closure of a drug line may provide a rational user with sufficient concern that they change their phone number.

This finding is interesting and may be useful to improving police strategies and tactics to prevent, deter, and disrupt drug markets. Further research is required to understand why 80% of lines drop off. If this study is replicated in different operational environments and it is found that there is a similarly high USER phone drop off, it may be that more practical policy implications will present themselves.

5.2.4 Finding Four: Drug Line Closure does NOT Correspond with an Increase in overall USER Harm

The crux of this study is whether the USERS of a drug line offend or suffer more recorded crime before or after the closure of a drug line. Comparing the cumulative USER harm 90 days before a closure to 90 days after reveals that 52% of drug lines experience a reduction in USER harm, 17% remain the same, and 31% increase. However, this headline figure of 52% of drug lines reducing is misleading. Figure 15 and Figure 19 both illustrate that the majority of those 52% of drug lines see only a marginal reduction in CCHI score, and that the larger increases and decreases are evenly matched. This is even clearer when calculating for Suspect only harm.

This study finds that USERS are not generating more cumulated harm following the closure of their Drug Line. This finding contrasts with academic research which has found policing drug markets can have adverse outcomes (Sherman, 1990). One study in the London Borough of Brixton actually found that a reduction in police drug enforcement corresponded with a reduction in crime (Adda, McConnell and Rasul, 2014). That this study finds no adverse effect on cumulative USER harm is a significant finding. It may be that the closing of 91 drug lines has little effect on the overall market. Had the market been genuinely disrupted by Op YAMATA closures it could be hypothesised that user harm would have increased, potentially due to users being exposed to more dangerous dealers or users needing to commit more crime to raise funds in a more expensive drug market. The fact USER harm did not increase may be indicative of a saturated drugs market and in line with much research that argues police drug enforcement is generally inconsequential (Johnson, 2003). Either way the important fact is that the tactic employed by Op YAMATA to primarily target high harm drug dealers does not seem to unintentionally increase the harm generated

by vulnerable USERS. This is believed to be the first study into the impact that the police tactic of closing a drug line has on users. When it comes to justifying the ongoing use of the tactic, this finding is important.

Policy Implication: Use this finding as evidence to support potential expansion of OP YAMATA.

5.2.5 Finding Five: Drug Line Closure DOES correspond with a reduction in USER VICTIM Harm

That USERS suffer less harm as victims following the closure of a drugs line is particularly clear. Figure 17 and Figure 21 illustrate that 48% of drug lines experience a reduction in victim harm compared to 19% that see an increase. Significantly, those 19% see a smaller rise in their CCHI score compared to most of the 48% which recorded a reduction of 500 CCHI or less. Importantly, the harm suffered by a recorded victim on CRIS is more verifiable than that of a suspect named on CRIS. Victim harm also excludes many offences, such as possession of drugs, that were only discovered through pro-active policing tactics. The scoring of these 'discovered' suspect offences can skew the overall harm picture (Sherman, Neyroud and Neyroud, 2016). Further evidence that USERS suffer less harm is exhibited in Figure 11. This shows that the 20% of USERS who are in contact with more than one drug line on average suffer over half as much harm as a USER of multiple lines. Therefore, those USERS suffering less harm experienced the closure of their drug line multiple times.

This finding enables the tactics employed in Op YAMATA to be framed through the lens of USER welfare. Police legitimacy relies upon lawfulness, effectiveness, and distributive, and procedural justice (Bottoms and Tankebe, 2017). Simply being

effective is not sufficient to improve legitimacy. If it were police legitimacy would have increased at the same rate that crime has declined (Tyler and Meares, 2019). The narrative that police enforcement is being undertaken to prevent harm to USERS as well as to pursue high harm drug dealers is an important message. It bestows legitimacy on the tactic and paves the way for its wider roll out across the MPS. Indeed, the NPCC at a strategic level could endorse the tactic to be deployed across UK Metropolitan cities rather than just as part of county lines operations. This finding provides a strong evidence base for the continuation of the YAMATA tactic and will be key in obtaining future partner support.

Policy Implication: Use this finding to improve trust and confidence in Op YAMATA to encourage external partnership working.

5.2.6 Finding Six: A USER is less likely to be a Victim of Theft or Assault after a Drug Line Closure but is more likely to be a victim of Domestic Abuse

As illustrated in Figure 22, USERS experienced a 50% drop in being recorded as a victim of assault and an 80% reduction in suffering theft related crimes in the 90 days after the closure of their drug line. Why this happens is unknown and requires further qualitative research. It does though provide evidence that Op YAMATA is combating acquisitive crime as well as drug supply. At a time that police are coming under more pressure to deal with shoplifting this may be a key argument to present to preserve the resources dedicated to Op YAMATA.

Conversely, Figure 22 also highlights that USERS of drug lines were almost a third more likely to be named as a victim of domestic abuse (DA) on a CRIS after a drug line was closed. DA is both a high volume and high-risk crime (Casey, 2023).

Many of the offences observed in this study are non-crime domestics, so carry no CCHI score, but can be predictive of future harm. It may be that the disturbance caused to a USER by the closure of their drug line impacts on their relationships. Further research conducting in-depth reviews of these crime reports may reveal how USERS who are victims of DA are treated by police. USERS may themselves also be less willing to engage with police and other support services. This provides real opportunities for future research.

In the interim this finding offers the mechanism for early identification of vulnerable USERS so police and other agencies can instigate early engagement. This would rely on strong partnership working and sharing information agreements. The implications on policy could be significant.

Policy Implication: Highlight that OP YAMATA could save money and resources by reducing theft and assault.

Policy Implication: Use data to identify potential vulnerable DA victims.

5.3 Policy Implications

The findings offer promising evidence to institute a formal evaluation of Op YAMATA tactics to look beyond simply arresting, charging, and convicting drug dealers. This could be the mechanism to initiate Op YAMATA in other MPS Borough Command Units. This would lead to a vast amount of new call data being collected.

To quickly identify those USERS responding to bulk texts will require many more CSAS licences and bespoke training for officers and staff. The process of searching each of those USER numbers through police systems is labour intensive and ponderous. This stage would require the commitment of time and resource.

However, once the USER details are known, officers trained to set parameters for CRIS searches and calculate CCHI scores could identify the power few.

Possibly the most important element required to maximise the implications of this study is to ensure strong collaboration with external partners. A key ingredient to achieving this is a willingness to share data and personal details of USERS. This will require Memorandum of Understandings (MOU) and sharing protocols to be created or tweaked. Partners may include, but not be limited to, social services, NHS, drug referral teams, charities, and local authorities. It is generally accepted that collaborative relationships require trust to be effective (Holton, 2001). Unfortunately, levels of trust between the MPS and both public services and the third sector have been strained in recent times. Long term austerity measures have reduced public services' capacity and capability to perform. This has overlapped with a series of catastrophic crimes and behaviours perpetrated by serving officers that have exposed endemic wrongdoing in policing. Partner agencies are staffed by members of the community whose level of trust and confidence in the MPS is significantly low. Increasing legitimacy requires police to display fairness, neutrality, respectfulness, and trustworthy motives, whilst ensuring the public have a voice (Tyler and Mears, 2019).

These principles should be applied to partnership relationships; and to the police themselves. Relentless criticism, as the MPS has received, can lead to a 'de-policing' effect where officers withdraw from their core role (Nix and Wolfe, 2017). Whereas officers whose inner voice recognises that the virtue of their actions have increased self-legitimacy (Bottoms and Tankebe, 2013). This study provides the evidence required to assure partners that Op YAMATA is both dealer and user focused, strongly motivated to reducing harm to vulnerable USERS.

Sharing this data should be part of a wider Prevent strategy to support identified USERS to move away from drugs and crime. Current call data of drug lines could be shared with those partners that are treating a USER to provide a realistic assessment of that USER's likely drug consumption. This will help with managing risk and deciding treatment options. The only way to assess if such interventions and activity can effect positive outcomes will require further extensive research.

5.4 Research Implications

This study, believed to be for the first time, analyses telephone call data and applies the CCHI to current USERS. This approach differs from much of the existing research into illicit drug markets which tends to use qualitative research and interviews. By finding that USER harm and frequency of contact between USER and dealer do not appear linked, this study adds to the depth of knowledge in the field of drug abuse and criminality. In identifying a power few of USERS who generate the most harm, this study has added to the body of research that finds that harm is not equally spread. Overall, the findings of this thesis build upon and bridges some of the gaps in the existing literature.

This exploratory study makes no claim to causality. It cannot by virtue of its design. To measure the extent to which the independent variable, in this case the closing of a drug line, affects the dependent variable, the USER CCHI score, a Randomised Control Test (RCT) would be required. This may provide confidence that any variance was not caused by external factors or a simple regression to the mean. A RCT is complex and difficult to implement but the components for one are present. 91 drug lines were considered in this study, and it is likely that other densely populated

inner city policing areas would have a similar number. A randomly selected number of drug lines could be subjected to closure and compared to a control group. A RCT could be applied to a plethora of scenarios that emerge from this study, such as testing the effectiveness of sending texts to a USER phone number offering drug referral options as a 'nudge'. Nudge theory relates to a light touch approach outside of legislation and is considered a gentle form of persuasion. Indeed, sending texts to those in the criminal justice system has previously been tested (Chivers and Barnes, 2018).

This study did not separate the USER data for gender, age, or ethnicity to identify potential predictive characteristics. Identifying common traits of the USERS causing most harm may provide opportunities for early intervention. A study of 81 prolific London based robbery offenders found that 80% of them had also been victims, and that half of those had four or more Adverse Childhood Experiences (ACE) (Hilder, Strang and Kumar, 2021).

As well as looking backwards it may also be productive to track the USERS over a longer period, reviewing whether they return to pre-closure levels of harm. Tracking mortality rates would also be an incisive measure.

This exploratory study has been by design very data focused. However, to better understand USER motivation and behaviour a complimentary interview-based approach could be deployed. This should be focused on the specific findings of this study to understand for example, how a USER funds their habit, or whether they change phone numbers following a closure of a drug line.

There are many directions in which future research projects could develop the findings of this study. This study is just the first stage, and although a strong starting point it's many limitations must be acknowledged.

5.5 Limitations

The challenge in this study has been to ensure that it is successfully measuring what it claims to measure. This study has measured the overall USER harm of each of the 58 drug lines. There are 20% of USERS who are purchasing from multiple lines, all of which were closed on different days. Consequently, those 20% of users will feature on a CRIS that will be recorded as a pre-closure offence on at least one drug line and a post-closure offence on a minimum of one other. This design was considered the best available but still does not eradicate the problem of double counting.

Another limitation is that each of the 58 drug lines carry the same weight when compared to each other, despite each having a different number of users. So, a drug line with 100 USERS which experiences an overall reduction in USER harm following its closure, is cancelled out by a drug line with six USERS whose accumulated harm increases after being closed. Of course, the actual size of the drug lines is unknown, as a drug line that only has a few days of call data will inevitably have far few USER numbers identified than a drug line where call data has been obtained over a 3-month period.

There are some challenges to the study's internal validity as there are so many alternative explanations for the change to the dependent variable. There will always be an element of noise, the unintended bias that can move in many directions, when measuring anything (Ruane, 2005). Consequently, a period of 12-months was chosen to mitigate spuriousness. However, there is no way of determining the impact of other overt policing activity, local initiatives by partners, or wider societal events on USER

behaviour. Furthermore, the risk of a spill over effect, where USERS will relay stories of their drug line being closed to other USERS, is high. As is the likelihood of a washout effect given that many of the 91 drug lines were closed in close temporal proximity. An Australian study found that hotspot patrols needed a washout period of five days before the deterrent effect totally decayed (Sherman, 2022).

Hackney and Tower Hamlets are both multi-cultural and vibrant London boroughs. They have their challenges and characteristics that are unique to them. They also have well established drug users whom local authorities and third sector groups already engage with. These environmental and structural differences will not be present in all other London boroughs and will likely differ even more with other councils across the UK. The drug user demographic of Hackney is likely to be very different to that of, for example Doncaster. In other words, there may be something unique to Hackney and Tower Hamlets that has led to these research findings. The external validity of a study is dependent on the extent to which it is replicable outside of the environment it was tested (Ariel, Bland and Sutherland, 2022). Police obtained call data relating to drug lines, is being collated across London and other UK metropolitan cities daily. This study is therefore capable of replication in most UK cities, and so that very quickly it can be determined whether closing drug lines is accompanied by a reduction in USER harm. The more the findings of studies in different geographical environments support each other the stronger the external validity becomes.

5.6 Conclusion

This chapter has discussed the six main findings associated with this research, highlighting their policy and research implications. It suggests that using CCHI scoring of users identified through recent call data fills some of the literature voids surrounding this subject. It has also produced findings that serve as a rebuttal to the ubiquitous view that law enforcement activity against illicit drugs is at best ineffective and at worst harmful. This study provides the evidence to frame police tactics through the lens of USER welfare and harm reduction. Thereby improving partner working and hopefully leading to better outcomes and ultimately increased legitimacy. The implications for policy may present opportunities for further research in themselves. Given that targeting, testing, and tracking ‘as you go’ is an essential element of evidence based policing (Sherman, 2013), this is no bad thing.

CHAPTER SIX: CONCLUSION

6.1. Conclusion

The 'war on drugs' at the production, supply, and consumption stages is widely accepted to be futile (Mallea, 2014). This study, a snapshot of one drug market in one BCU in one year collating almost 1.8 million lines of call data, adds to this sense of futility. The destruction caused by using illicit drugs such as crack cocaine and heroin is visible for all to see. Whether it is heroin addicts sleeping rough in central London, the wild-eyed crack user openly shoplifting, or theft from motor vehicles increasing, the public see it. There is a pervasive acquiescence to drugs across society and a tendency to dehumanise hard drug users (Brown, 2020). Terms such as Crack heads, Smack heads, or Junkie are common parlance. That drug enforcement policy may not consider the implication on the end user is unsurprising.

This thesis has highlighted research which argues drug law enforcement is at best inconsequential and at worst harmful to USERS (Coomber, Moyle and Mahoney, 2019). Police crackdowns can result in users coming to harm due to rushing injections, or buying from less trusted sources and consequently suffering violence, robbery or being 'ripped off' (Spicer, 2020).

There appears to be little consideration by police leaders for what effect any law enforcement activity has on USERS. OP YAMATA is concentrated on the Hackney and Tower Hamlets gang-operated drug lines. This is because the holders and controllers of these drug lines are fuelling violence and firearms offences more than dealers without gang affiliations (Hallworth, 2016). Drug dealing has become these gang members' Achilles heel (MPS, 2023). Through the analysis of telecommunication data police gather the evidence, arrest, charge and ultimately

convict and imprison the highest harm gang members (HMICFRS, 2019). This study undertakes an exploratory analysis of drug line call data to assess the impact Op YAMATA has on the end user. However, the call data and CRIS reports available to this study would not be readily accessible for most academic research.

Over half a million lines of data were analysed revealing 2752 USER numbers that had responded to one of the 91 drug lines closed between April 2022 and March 2023. 983 individuals were subsequently categorised as a USER due to being attributed to one of these 2752 USER numbers. 18 months of CRIS data, between 01/01/2022 and 30/06/2023 was filtered for these 983 USERS identifying 993 CRIS reports, of which 340 known USERS feature on at least one of these CRIS reports.

These 340 known USERS had been in contact with at least one of 58 drug lines. The CCHI score for each USER was calculated and ranked, providing evidence of which USERS were generating most harm. Each drug line was separated and the CCHI harm of each USER was calculated for the 30, 60, and 90 days before and after closure. This revealed how many drug lines experienced a reduction, increase or no change in their respective USER's CCHI score in the 30, 60, and 90 days after drug line closure.

This thesis details six findings that go to answering the key research question. Which asks: Does the arrest of drug dealers in one Borough Command Unit correspond to any reduction in the presence of a USER's phone number in the local drugs market, or to the Cambridge Crime Harm Index value of the crimes or victimisation of the USERS?

The answer to both parts of this question is yes. Firstly, 80% of USER numbers do not appear in the call data of the wider drugs market following the closure of their drug line. Secondly, a USER of a drug line suffers less recorded harm, especially theft

and assault, in the 90 days after that drug line is closed compared to 90 days before. Furthermore, in the process of answering this question a power few of USERS who generate the most harm has been discovered. Interestingly they are not the same as those USERS who are most in contact with Drug Lines.

This study was afforded an opportunity to approach an enforcement tactic, squarely aimed at high harm dealers, from the perspective of the end USER. A fair hypothesis would be that USERS would generate more harm following a closure of the line for some of the reasons set out above. On the contrary, those USERS who are the subjects of this research perpetrated no more harm and suffered less harm in the 90 days following police activity. A key part of the ethos of the medical profession is “First do no harm” (Smith, 1994), which reminds Doctors to before all else to consider the harm that an intervention may cause. The same principle could be applied across all public service. This study should give police leaders confidence that the YAMATA tactic is not having an unintended consequence leading to more harm being generated by USERS.

This thesis seeks to bring USER welfare to the centre of policing tactics. The war on drugs may be futile and costly; but even in fighting a losing battle law enforcement should consider the welfare of vulnerable USERS rather than view them as collateral damage. *Primum non nocere* is a worthy mantra.

6.2. Policy Implications and Key Recommendations

There are three policy implications that arise from these findings that if enacted could lead to better targeting of resources to reduce harm:

1. Target the power few of USERS who generate most harm through enforcement or safeguarding.
2. Conduct further research of the power few USERS to quickly identify vulnerable sex workers and potential domestic abuse (DA) victims so safeguarding measures can be considered.
3. Highlight that USERS of a closed drug line suffer less recorded harm, particularly theft and assault, to improve the legitimacy of the tactic in the eyes of potential partners.

To implement these this thesis offers the MPS three key recommendations:

1. Instigate a formal evaluation of Op YAMATA with a view to implementing it across the MPS.
2. Grant more CSAS licences and provide relevant training.
3. Share data and personal USER information with relevant external partners.

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APPENDICES

Appendix A - Cambridge Crime Harm Index used for Analysis

Offence Number	Offence Description	CCHI Score
1	Murder - Victim aged 1 and over (Indictable)	5475
2	Murder - Victim aged under 1 (Indictable)	5475
3	Soliciting to commit murder (Indictable)	5475
4	Conspiracy to commit murder (Indictable)	5475
5	Child Destruction (Indictable)	4380
6	Attempted - Murder - Victim 1 and over	3285
7	Attempted - Murder - Victim under 1	3285
8	Attempted murder (Indictable)	3285
9	Administering poison so as to endanger life (Indictable)	3285
10	Rape of a female (under 13) (Indictable)	2920
11	Attempted rape of a female (under 13) (Indictable)	2920
12	Rape of a male (under 13) (Indictable)	2920
13	Attempted rape of a male (under 13) (Indictable)	2920
14	Making, possessing or controlling explosive substance with intent to endanger life (Indictable)	2920
15	Import prohibited weapons / ammunition with intent to evade prohibition / restriction	2920
16	Attempted rape of a female (under 16) (Indictable)	2555
17	Rape of a female (under 16) (Indictable)	2555
18	Attempted rape of a male (under 16) (Indictable)	2555
19	Rape of a male (under 16) (Indictable)	2555
20	Multiple Undefined Offenders Rape of a female aged 16 or over.	2555
21	Sexual activity with a child family member - Male - Victim Under 13 - 18 or over - penetration (Indictable)	2555
22	Attempted - Sexual activity with a child family member - Male - Victim Under 13 - 18 or over - penetration (Indictable)	2555
23	Manufacture weapon / ammunition specified in section 5 (1) of the Firearms Act 1968.	2190
24	Possess prohibited weapon / ammunition for sale / transfer.	2190
25	Purchase / acquire prohibited weapon / ammunition for sale / transfer.	2190
26	Causing or inciting a child under 13 to engage in sexual activity by an offender under 18 years of age: Female child - penetration	2190
27	Causing or inciting a child under 13 to engage in sexual activity by an offender under 18 years of age: Male child - penetration	2190
28	Causing or inciting a child under 13 to engage in sexual activity: Female child - penetration (Indictable)	2190
29	Attempted - Causing or inciting a child under 13 to engage in sexual activity: Female child - penetration (Indictable)	2190
30	Kidnapping - Forced marriage offences under	2190
31	Endangering Life - Use of noxious substances or things to cause harm and intimidate	2190
32	Attempting to choke etc in order to commit indictable offence (Indictable)	2190
33	Using chloroform etc to commit indictable offence (Indictable)	2190
34	Causing explosions, sending explosive substance or throwing corrosive fluids with intent to do grievous bodily harm (Indictable)	2190
35	Possessing firearm or imitation while committing or being arrested for offences in Schedule 1 Firearms Act 1968 (Indictable)	1825
36	Possessing firearm or imitation firearm with intent to commit indictable offence or resist arrest (Indictable)	1825

37	Possessing air weapon or imitation firearm with intent to commit indictable offence or resist arrest (Indictable)	1825
38	Possessing firearm or imitation firearm with intent to cause fear of violence (Indictable)	1825
39	Possessing air weapon or imitation firearm with intent to cause fear of violence (Indictable)	1825
40	Possessing or distributing prohibited weapons or ammunition (Indictable)	1825
41	Attempted rape of a female (16 or over) (Indictable)	1825
42	Rape of a female (16 or over) (Indictable)	1825
43	Rape of a male (16 or over) (Indictable)	1825
44	Attempted rape of a male (16 or over) (Indictable)	1825
45	Causing death by aggravated vehicle taking	1825
46	Possession of firearm with intent to endanger life (Indictable)	1825
47	Assault Police - Wounding with intent to do grievous bodily harm (Indictable) (S.18)	1825
48	Attempted - Assault Police - Wounding with intent to do grievous bodily harm (Indictable) (S.18)	1825
49	Assault Police - Wounding with intent to resist/prevent arrest (S.18)	1825
50	Attempted - Assault Police - Wounding with intent to resist/prevent arrest (S.18)	1825
51	Assault Police - Cause GBH with intent to resist/prevent arrest. (S.18)	1825
52	Child Abduction - Abduction of child by other persons	1460
53	Attempted - Child Abduction - Abduction of child by other persons	1460
54	Administering drugs or using instruments to procure abortion (Indictable)	1460
55	Assault of a male child under 13 by penetration (Indictable)	1460
56	Assault of a female child under 13 by penetration (Indictable)	1460
57	Sexual activity with a child under 13 by an offender under 18 years of age: Female child - penetration	1460
58	Sexual activity with a child under 13 by an offender under 18 years of age: Male child - penetration	1460
59	Kidnapping - Kidnapping (Indictable)	1460
60	Attempted - Kidnapping (Indictable)	1460
61	Kidnapping - False imprisonment (Indictable)	1460
62	Manufacture or possession of explosives under suspicious circumstances	1460
63	Possessing or making an explosive substance, a noxious or dangerous thing, machine, engine, or instrument with intent to commit an offence under this act	1460
64	Wounding with intent to do grievous bodily harm (Indictable)	1460
65	Attempted - Wounding with intent to do grievous bodily harm (Indictable)	1460
66	Female genital mutilation - Excise, infibulate, aid, abet, counsel	1460
67	Sexual activity with a child family member - Female - Victim aged 13-17 - 18 or over - penetration (Indictable)	1277.5
68	Assisting offender by impeding his apprehension or prosecution In a case of murder (Indictable)	1095
69	Causing death by dangerous driving (Indictable)	1095
70	Assault Police - GBH serious wound without intent (s20)	912.5
71	Attempted - Assault Police - GBH serious wound without intent (s20)	912.5
72	Carrying loaded firearm or any other firearm (whether loaded or not) together with ammunition suitable for use in that firearm in a public place etc	730
73	Carrying loaded firearm or any other firearm (whether loaded or not) together with ammunition suitable for use in that firearm in a public place etc	730
74	Assault on a male by penetration (Indictable)	730
75	Assault on a female by penetration (Indictable)	730
76	Sexual activity with a child under 13 by an offender under 18 years of age: Female child no penetration	730
77	Sexual activity with a child under 13 by an offender under 18 years of age: Male child no penetration	730
78	Causing or inciting a child under 13 to engage in sexual activity by an offender under 18 years of age: Female child no penetration	730
79	Causing or inciting a child under 13 to engage in sexual activity by an offender under 18 years of age: Male child no penetration	730
80	Causing or inciting a child under 13 to engage in sexual activity: Female child no penetration	730
81	Attempted - Causing or inciting a child under 13 to engage in sexual activity: Female child no penetration	730
82	Causing or inciting a child under 13 to engage in sexual activity: Male child no penetration	730

83	Attempted - Causing or inciting a child under 13 to engage in sexual activity: Male child no penetration	730
84	Causing a person to engage in sexual activity without consent: Female person (Indictable)	730
85	Attempted - Causing a person to engage in sexual activity without consent: Female person (Indictable)	730
86	Causing a person to engage in sexual activity without consent: Male person (Indictable)	730
87	Attempted - Causing a person to engage in sexual activity without consent: Male person (Indictable)	730
88	Aggravated Burglary - Residential - Dwelling	730
89	Aggravated Burglary - Residential - Non-Dwelling	730
90	Attempted Aggravated Burglary - Residential - Dwelling	730
91	Aggravated Burglary - Business And Community	730
92	Attempted Aggravated Burglary - Business And Community	730
93	Manslaughter (Indictable)	730
94	Publish/cause another to publish a statement intending to or recklessly encouraging terrorism	730
95	Intentionally doing an act capable of encouraging or assisting the suicide or attempted suicide of another (Indictable)	730
96	Administering a substance with intent	730
97	Trespass with intent to commit a sexual offence	730
98	Triable-either-way offences – Money Laundering/Terrorise Financing 2017	730
99	Knowingly hold another person in slavery/servitude	730
100	Threaten with an offensive weapon on school premises	547.5
101	Threaten with a blade or sharply pointed article on school premises	547.5
102	Take or to make or to distribute indecent photographs or pseudo- photographs, of children	547.5
103	Attempted - Take or to make or to distribute indecent photographs or pseudo- photographs, of children	547.5
104	Meeting a female child following sexual grooming etc (Offender is aged 18 or over and victim is under 16)	547.5
105	Attempted - Meeting a female child following sexual grooming etc (Offender is aged 18 or over and victim is under 16)	547.5
106	Meeting a male child following sexual grooming etc (Offender is 18 or over and victim is under 16)	547.5
107	Attempted - Meeting a male child following sexual grooming etc (Offender is 18 or over and victim is under 16)	547.5
108	GBH serious wound without intent (s20)	547.5
109	Attempted - GBH serious wound without intent (s20)	547.5
110	Administer poison/noxious thing to injure/annoy (Indictable)	547.5
111	Attempted - Administer poison/noxious thing to injure/annoy (Indictable)	547.5
112	Production or being concerned in production of a controlled drug - Class A - Cocaine	547.5
113	Production or being concerned in production of a controlled drug - Class A - Heroin	547.5
114	Production or being concerned in production of a controlled drug - Class A - Crack	547.5
115	Production or being concerned in production of a controlled drug - Class A - Methadone	547.5
116	Production or being concerned in production of a controlled drug - Class A - Other	547.5
117	Production or being concerned in production of a controlled drug - Class B - Cannabis	547.5
118	Production or being concerned in production of a controlled drug - Class B - Other	547.5
119	Supplying or offering to supply a controlled drug - Class A - Cocaine	547.5
120	Supplying or offering to supply a controlled drug - Class A - Heroin	547.5
121	Attempted - Supplying or offering to supply a controlled drug - Class A - Heroin	547.5
122	Supplying or offering to supply a controlled drug - Class A - MDMA	547.5
123	Supplying or offering to supply a controlled drug - Class A - Crack	547.5
124	Supplying or offering to supply a controlled drug - Class A - Other	547.5
125	Possession of a controlled drug with intent to supply - Class A - Cocaine	547.5
126	Possession of a controlled drug with intent to supply - Class A - Heroin	547.5
127	Attempted - Possession of a controlled drug with intent to supply - Class A - Heroin	547.5
128	Possession of a controlled drug with intent to supply - Class A - MDMA	547.5
129	Possession of a controlled drug with intent to supply - Class A - Crack	547.5
130	Attempted - Possession of a controlled drug with intent to supply - Class A - Crack	547.5
131	Possession of a controlled drug with intent to supply - Class A - Methadone	547.5

132	Possession of a controlled drug with intent to supply - Class A - Other	547.5
133	Possession of a controlled drug with intent to supply a class A controlled drug	547.5
134	Production or being concerned in production of a controlled drug - Class A - Crystal Meths	547.5
135	Supplying or offering to supply a controlled drug - Class A - Crystal Meths	547.5
136	Possess a psychoactive substance with intent to supply	547.5
137	Possession of firearms by persons previously convicted of crime (Group I)	365
138	Possessing or distributing prohibited weapons designed for discharge of noxious substances etc	365
139	Possessing or distributing other prohibited weapons	365
140	Sexual activity with a female child under 16 by Penetration - Offender Under 18	365
141	Attempted - Sexual activity with a female child under 16 by Penetration - Offender Under 18	365
142	Sexual activity with a male child under 16 by Penetration - Offender Under 18	365
143	Causing or inciting a female child under 16 to engage in sexual activity by Penetration - Offender Under 18	365
144	Causing or inciting a male child under 16 to engage in sexual activity by Penetration - Offender Under 18	365
145	Attempted - Causing or inciting a male child under 16 to engage in sexual activity by Penetration - Offender Under 18	365
146	Sexual activity with a female child under 16 by Penetration - Offender 18 or over (Indictable)	365
147	Attempted - Sexual activity with a female child under 16 by Penetration - Offender 18 or over (Indictable)	365
148	Sexual activity with a male child under 16 by Penetration - Offender 18 or over (Indictable)	365
149	Causing or inciting a female child under 16 to engage in sexual activity by Penetration - Offender 18 or over (Indictable)	365
150	Attempted - Causing or inciting a female child under 16 to engage in sexual activity by Penetration - Offender 18 or over (Indictable)	365
151	Attempted - Inciting a child family member to engage in sexual activity - Female - Victim aged 13-20 - Under 18 - no penetration	365
152	Sexual activity with a child family member - Female - Victim Under 13 - Under 18 - no penetration	365
153	Inciting a child family member to engage in sexual activity - Male - Victim Under 13 - Under 18 - no penetration	365
154	Inciting a child family member to engage in sexual activity - Female - Victim Under 13 - 18 or over - no penetration	365
155	Controlling prostitution for gain	365
156	Distraction Burglary - Residential - Dwelling	365
157	Attempted Distraction Burglary - Residential - Dwelling	365
158	Robbery (Business) (Indictable)	365
159	Attempted - Robbery (Business) (Indictable)	365
160	Assault with intent to rob (Business) (Indictable)	365
161	Attempted - Assault with intent to rob (Business) (Indictable)	365
162	Robbery (Personal) (Indictable)	365
163	Attempted - Robbery (Personal) (Indictable)	365
164	Assault with intent to rob (Personal) (Indictable)	365
165	Attempted - Assault with intent to rob (Personal) (Indictable)	365
166	Blackmail (Indictable)	365
167	Attempted - Blackmail (Indictable)	365
168	Causing serious injury by dangerous driving	365
169	Attempted - Causing serious injury by dangerous driving	365
170	Arson endangering life (Indictable)	365
171	Attempted - Arson endangering life (Indictable)	365
172	Criminal damage to a dwelling endangering life (Indictable)	365
173	Criminal damage to a building other than a dwelling endangering life (Indictable)	365
174	Criminal damage to a vehicle endangering life (Indictable)	365
175	Criminal damage endangering life, other (Indictable)	365
176	Unauthorised act in relation to a computer causing /creating risk of serious damage (Indictable)	365
177	Cause or Inciting the sexual exploitation of a child: Child 13 - 17	365
178	(outcomes only) Unauthorised access to computer material with intent to commit or facilitate commission of further offences	365

179	(outcomes only) Racially or religiously aggravated inflicting grievous bodily harm without intent	357
180	Racially or religiously aggravated wounding or grievous bodily harm	357
181	Cause or allow a child or vulnerable adult to suffer serious physical harm (Indictable)	270
182	Stalking involving serious alarm/distress	252
183	Attempted - Stalking involving serious alarm/distress	252
184	Possessing or distributing firearm designed as other object (Indictable)	182.5
185	Using someone to look after a dangerous weapon - offensive/weapon/knife/bladed weapon (Indictable)	182.5
186	Threaten with an offensive weapon in a public place	182.5
187	Threaten with a blade or sharply pointed article in a public place	182.5
188	Perjury - judicial proceedings (Indictable)	182.5
189	Conveyance etc of List A articles into or out of prison (Indictable)	182.5
190	Attempted - Conveyance etc of List A articles into or out of prison (Indictable)	182.5
191	Sexual activity with a person with a mental disorder impeding choice: Male person (Indictable)	182.5
192	Care workers: Sexual activity with a person with a mental disorder: Female person (Indictable)	182.5
193	Sexual activity with a person with a mental disorder impeding choice: Female person no penetration	182.5
194	Attempted - Causing or inciting a person with a mental disorder impeding choice to engage in sexual activity: Female person no penetration	182.5
195	Arranging or facilitating the commission of a child sex offence	182.5
196	Attempted - Arranging or facilitating the commission of a child sex offence	182.5
197	Abuse of position of trust: sexual activity with a male child aged under 13 Suspect aged 18 or over	182.5
198	Abuse of position of trust: causing or inciting a child to engage in sexual activity - male child aged under 13 Suspect aged 18 or over	182.5
199	Abuse of position of trust: causing a child to watch a sexual activity - male child aged under 13 Suspect aged 18 or over	182.5
200	Absconding from lawful custody (Indictable)	182.5
201	Attempted - Absconding from lawful custody (Indictable)	182.5
202	Assault Police - Minor wound without intent (s20)	182.5
203	Attempted - Assault Police - Minor wound without intent (s20)	182.5
204	Assault Police - Assault occasioning actual bodily harm (ABH) (S.47)	182.5
205	Attempted - Assault Police - Assault occasioning actual bodily harm (ABH) (S.47)	182.5
206	Intentionally encouraging or assisting commission of an indictable offence (NOT MURDER)	182.5
207	Assist offender (Offences triable on indictment only) (Indictable)	182.5
208	Endangering safety of aircraft	182.5
209	Firearms Act 1968, Trespassing with firearm on land(Group I)	182.5
210	Sexual assault on a male child under 13	182
211	Attempted - Sexual assault on a male child under 13	182
212	Sexual assault of a female child under 13	182
213	Attempted - Sexual assault of a female child under 13	182
214	Make / possess / control apparatus / article / material designed / adapted for making false identity documents (Indictable)	182
215	Violent disorder	182
216	Misconduct in a public office by act or commission	182
217	Impersonation under Representation of the People Act 1983	182
218	Distraction Burglary - Residential - Non-Dwelling	126
219	Attempted Distraction Burglary - Residential - Non-Dwelling	126
220	Attempted - Harming or threatening to harm a witness	126
221	Attempting to Pervert the Course of Public Justice (Indictable)	120
222	Shine/direct laser beam towards a vehicle	120
223	Failure to comply with a Serious Crime Prevention Order	84
224	Breach of a marriage protection order	84
225	Drivers injuring persons by furious driving (Indictable)	84
226	Stalking involving fear of violence	84
227	Anti-social Behaviour Act 2003 - Continuing failure to comply with remedial order after conviction under Section 75(9)	84
228	Intimidating a juror or witness or person assisting in investigation of offence	42

229	Attempted - Intimidating a juror or witness or person assisting in investigation of offence	42
230	Harming or threatening to harm a witness, juror or person assisting in investigation	42
231	Intimidating or intending to intimidate a witness	42
232	Harming or threatening to harm a witness	42
233	Possession of offensive weapon on school premises other than with a blade	19
234	Having an article with a blade or point on school premises	19
235	Child Abduction - Abduction of a child by parent	19
236	Attempted - Child Abduction - Abduction of a child by parent	19
237	Sexual assault on a male	19
238	Attempted - Sexual assault on a male	19
239	Sexual assault on a female	19
240	Attempted - Sexual assault on a female	19
241	Causing a person to engage in sexual activity without consent: Female person no penetration	19
242	Attempted - Causing a person to engage in sexual activity without consent: Female person no penetration	19
243	Causing a person to engage in sexual activity without consent: Male person no penetration	19
244	Sex with an adult relative - Penetration (Offender aged 16 or over relative aged 18 or over)	19
245	Burglary - Residential - Dwelling	19
246	Attempted Burglary - Residential - Dwelling	19
247	Theft by an Employee	19
248	Attempted - Theft by an Employee	19
249	Notifies police, under Notification Order, with false information	19
250	Placing or dispatching articles to cause a bomb hoax	19
251	Communicating false information alleging presence of bomb	19
252	Unauthorised possession in prison of knife or offensive weapon	19
253	Unauthorised possession in prison of knife or offensive weapon	19
254	Possession of an indecent or pseudo indecent photo of a child	19
255	Possessing prohibited images of children	19
256	Attempted - Possessing prohibited images of children	19
257	Additional Voyeurism Offences (upskirting)	19
258	Attempted Additional Voyeurism Offences (upskirting)	19
259	Minor wound without intent (s20)	19
260	Attempted - Minor wound without intent (s20)	19
261	Care worker ill-treat /wilfully neglect an individual	19
262	Racially or religiously aggravated assault or assault occasioning actual bodily harm	19
263	Assisting unlawful immigration to member state	19
264	Assisting a detained person to escape	19
265	Interfering with the mail - postal operators	19
266	Wildlife and Countryside Act 1981, Prohibition of certain methods of killing or taking wild birds	19
267	Wildlife and Countryside Act 1981, Sale etc of live or dead wild birds, eggs etc	19
268	Anti-social Behaviour Act 2003 - Without reasonable excuse permitting premises to be open in contravention of closure order	19
269	Engage in controlling/coercive behaviour in an intimate / family relationship.	10
270	Racially or religiously aggravated common assault or beating	10
271	Attempted - Racially or religiously aggravated common assault or beating	10
272	Possessing etc firearms or ammunition without firearm certificate	10
273	Attempted - Possessing etc firearms or ammunition without firearm certificate	10
274	Possession of firearms by persons previously convicted of crime (Group II)	10
275	Possessing etc shotgun without certificate	10
276	Cruelty to Children/Young Persons - Exposing child to risk of burning	10
277	Cruelty to Children/Young Persons - Neglecting to provide for safety at children's entertainment	10
278	Cruelty to Children/Young Persons - Cruelty to and neglect of children	10
279	Attempted - Cruelty to Children/Young Persons - Cruelty to and neglect of children	10
280	Engaging in sexual activity in the presence of a child under 13 by an offender over 18 years of age	10
281	Causing a child under 13 to watch a sexual act by an offender over 18 years of age	10
282	Attempted - Causing a child under 13 to watch a sexual act by an offender over 18 years of age	10

283	Engaging in sexual activity in the presence of a child under 13 by an offender under 18 years of age	10
284	Engaging in sexual activity in the presence of a child under 16 - Offender aged 18 or over	10
285	Causing a child under 16 to watch a sexual act - Offender aged 18 or over	10
286	Causing a child under 16 to watch a sexual act - Offender aged Under 18	10
287	Sexual activity with a female child under 16 No penetration - Offender 18 or over	10
288	Sexual activity with a male child under 16 No penetration - Offender 18 or over	10
289	Causing or inciting a female child under 16 to engage in sexual activity No Penetration - Offender 18 or over	10
290	Attempted - Causing or inciting a female child under 16 to engage in sexual activity No Penetration - Offender 18 or over	10
291	Causing or inciting a male child under 16 to engage in sexual activity No Penetration - Offender 18 or over	10
292	Attempted - Causing or inciting a male child under 16 to engage in sexual activity No Penetration - Offender 18 or over	10
293	Sexual activity with a female child under 16 No penetration - Offender Under 18	10
294	Sexual activity with a male child under 16 No penetration - Offender Under 18	10
295	Causing or inciting a female child under 16 to engage in sexual activity No Penetration - Offender Under 18	10
296	Attempted - Causing or inciting a female child under 16 to engage in sexual activity No Penetration - Offender Under 18	10
297	Causing or inciting a male child under 16 to engage in sexual activity No Penetration - Offender Under 18	10
298	Attempted - Causing or inciting a male child under 16 to engage in sexual activity No Penetration - Offender Under 18	10
299	Sex with an adult relative - Consenting to Penetration (Offender aged 16 or over relative aged 18 or over)	10
300	Inciting a child family member to engage in sexual activity - Male - Victim Under 13 - 18 or over - no penetration	10
301	Sexual activity with a child family member - Female - Victim aged 13-20 - Under 18 - no penetration	10
302	Causing or inciting prostitution for gain	10
303	Attempted - Causing or inciting prostitution for gain	10
304	Keeping a brothel used for prostitution	10
305	Burglary - Residential - Non-Dwelling	10
306	Attempted Burglary - Residential - Non-Dwelling	10
307	Burglary - Business And Community	10
308	Attempted Burglary - Business And Community	10
309	Making or supplying articles for use in frauds	10
310	Making, supplying or obtaining articles for use in offence under sections 1 or 3	10
311	Attempted - Making, supplying or obtaining articles for use in offence under sections 1 or 3	10
312	Aggravated vehicle taking where the only aggravating factor is criminal damage of £5000 or under	10
313	Attempted - Aggravated vehicle taking where the only aggravating factor is criminal damage of £5000 or under	10
314	Aggravated vehicle taking (driving / being carried) offences causing damage to vehicle and / or property under £5000	10
315	Aggravated vehicle taking	10
316	Concealing etc criminal property	10
317	Attempted - Concealing etc criminal property	10
318	Acquisition, use & possession of criminal property	10
319	Attempted - Acquisition, use & possession of criminal property	10
320	Threats to kill	10
321	Attempted - Threats to kill	10
322	Causing death by careless or inconsiderate driving	10
323	Causing death by driving: unlicensed, disqualified or uninsured drivers	10
324	Theft of a motor vehicle	10
325	Attempted - Theft of a motor vehicle	10
326	Theft of conveyance other than a motor or pedal cycle	10
327	Attempted - Theft of conveyance other than a motor or pedal cycle	10
328	Causing danger to road-users	10
329		10
330	Using a false instrument or a copy of a false instrument	10

331	Making counterfeit coin or note	10
332	Pass etc counterfeit coin or note as genuine	10
333	Attempted - Pass etc counterfeit coin or note as genuine	10
334	Possess counterfeit coin or note	10
335	Affray	10
336	Attempted - Affray	10
337	Breach a sexual risk order / risk of harm order etc. or fail to comply with requirement under Sec 122 c (4)	10
338	Breach a sexual risk order / risk of harm order etc. or fail to comply with requirement under Sec 122 c (4)	10
339	Breach SHPO / interim SHPO / SOPO / interim SOPO / Foreign travel order or fail to comply with a requirement under Sec 103D (4)	10
340	Breach of Anti-Social Behaviour Order	10
341	False statements etc to obtain passport	10
342	Conveyance etc of List B articles into or out of prison	10
343	Attempted - Conveyance etc of List B articles into or out of prison	10
344	Other offences relating to prison security	10
345	Without authority possess inside a prison an item specified in Sec 40D (3A)	10
346	Attempted - Without authority possess inside a prison an item specified in Sec 40D (3A)	10
347	Throwing articles into prison - Section 40CB of Prison Act 1952	10
348	Care workers: Sexual activity with a person with a mental disorder: Female person - no penetration	10
349	Care workers: Causing a person with a mental disorder or learning disability to watch a sexual act	10
350	Abuse of position of trust: causing or inciting a child to engage in sexual activity - male child aged 13-17 Suspect aged 18 or over	10
351	Abuse of position of trust: sexual activity with a female child aged 13-17 Suspect aged 18 or over	10
352	Abuse of position of trust: sexual activity with a male child aged 13-17 Suspect aged 18 or over	10
353	Abuse of position of trust: causing or inciting a child to engage in sexual activity - female child aged 13-17 Suspect aged 18 or over	10
354	Dangerous Driving	10
355	Fraud, forgery etc associated with driving licence	10
356	Attempted - Fraud, forgery etc associated with driving licence	10
357	Fraud, forgery etc associated with work records	10
358	Attempted - Fraud, forgery etc associated with work records	10
359	Engage in sexual communication with a child	10
360	Attempted - Engage in sexual communication with a child	10
361	Voyeurism	10
362	Exposure	10
363	Harassment - without violence (course of conduct)	10
364	Attempted - Harassment - without violence (course of conduct)	10
365	Racially or religiously aggravated Harassment or stalking without violence	10
366	Attempted - Racially or religiously aggravated Harassment or stalking without violence	10
367	Racially or religiously aggravated Harassment or stalking with fear of violence	10
368	Assault occasioning actual bodily harm (ABH)	10
369	Attempted - Assault occasioning actual bodily harm (ABH)	10
370	Harassment - Pursue course of conduct in breach of Sec 1 (1) which amounts to stalking	10
371	Permitting premises to be used for unlawful purposes - Class A - Heroin	10
372	Permitting premises to be used for unlawful purposes - Class A - Crack	10
373	Knowingly make false/misleading/ reckless statement or intentionally fail to disclose information	10
374	Fraudulent evasion of income tax	10
375	False statements, false entries in records and forgery	10
376	Sought to engage/offered to engage/engaged in regulated activity from which barred	10
377	Fraudulent evasion of duty etc	10
378	Attempted - Fraudulent evasion of duty etc	10
379	Conspiracy to commit a listed Sexual offence	10
380	Racially or religiously aggravated fear or provocation of violence	10

381	Attempted - Racially or religiously aggravated fear or provocation of violence	10
382	Fail to comply with a community protection notice	10
383	Fail to comply with requirement not to consume or surrender alcohol	10
384	Fail to comply with a section 35 direction excluding a person from an area	10
385	Remain on or enter premises in contravention of a closure order	10
386	Breach of a criminal behaviour order	10
387	(outcomes only) Give false information knowingly or recklessly when applying for a confidentiality order etc	10
388	(outcomes only) Fraud by Abuse of Position	10
389	(outcomes only) Obtaining services dishonestly	10
390	Football Spectators Act 1989, Failure to comply with requirements of Football Banning Order	10
391	Protection from Harassment Act 1997 - Pursue course of conduct in breach of S1(1) which amounts to stalking	10
392	Criminal Law Act 1977as amended by Criminal Justice and Public Order Act 1994, Violence for securing entry	10
393	Anti-social Behaviour Act 2003 - Contravention of a direction given by a constable under S30(4) [dispersal of groups and removal of persons under 16 to their place of residence]	10
394	Firearms Act 1968added by Violent Crime Reduction Act 2006 - Fire an air weapon beyond premises	10
395	Unlawful eviction of Occupier	7
396	Attempted - Unlawful eviction of Occupier	7
397	Unlawful harassment of Occupier	7
398	Attempted - Protection of occupiers against eviction and harassment	7
399	Possession of offensive weapon without lawful authority or reasonable excuse	5
400	Attempted - Possession of offensive weapon without lawful authority or reasonable excuse	5
401	Having an article with a blade or point in a public place	5
402	Attempted - Having an article with a blade or point in a public place	5
403	Failure to disclose; another person involved in money laundering - regulated sector	5
404	Failure to comply with regulations of The Money Laundering Regulations 2007 R 45	5
405	Unauthorised taking of a motor vehicle (does not include 'driving or being carried knowing motor vehicle has been taken ')	5
406	Attempted - Unauthorised taking of a motor vehicle (does not include 'driving or being carried knowing motor vehicle has been taken ')	5
407	Unauthorised taking of conveyance other than a motor vehicle or pedal cycle	5
408	Attempted - Unauthorised taking of conveyance other than a motor vehicle or pedal cycle	5
409	Undertaking or assisting in the retention, removal, disposal or realisation of stolen goods or arranging to do so	5
410	Arson not endangering life	5
411	Attempted - Arson not endangering life	5
412	Failure to comply with (Sexual Offence) Notification Order	5
413	Committing or conspiring to commit, an act outraging public decency	5
414	Use of words or behaviour or display or written material (Acts intended to stir up racial hatred)	5
415	Publishing or distributing written material (Acts intended to stir up racial hatred)	5
416	Breach of a Restraining Order issued on acquittal	5
417	Breach of non-molestation order	5
418	Use of words or behaviour or display of written material (Acts intended to stir up religious hatred/sexual hatred)	5
419	Publishing or distributing written material (Acts intended to stir up religious hatred/sexual hatred)	5
420	Distributing, showing or playing a recording (Acts intended to stir up religious hatred/sexual hatred)	5
421	Fail to comply with notification requirements of Sec 108(1)	5
422	Breach of conditions of injunction against harassment	5
423	Harassment - Putting people in fear of violence	5
424	Attempted - Harassment - Putting people in fear of violence	5
425	Breach of a restraining order	5
426	Disclose private sexual photographs and films with intent to cause distress	5
427	Supplying or offering to supply a controlled drug - Class B - Amphetamine	5
428	Supplying or offering to supply a controlled drug - Class B - Cannabis	5

429	Supplying or offering to supply a controlled drug - Class B - Synthetic cannabinoid receptor agonists	5
430	Supplying or offering to supply a controlled drug - Class B - Other	5
431	Supply Cannabis a Class C controlled drug	5
432	Supplying or offering to supply a controlled drug - Class C - Other	5
433	Supplying or offering to supply a controlled drug - Class unspecified	5
434	Possession of a controlled drug with intent to supply - Class B - Amphetamine	5
435	Possession of a controlled drug with intent to supply - Class B - Cannabis	5
436	Attempted - Possession of a controlled drug with intent to supply - Class B - Cannabis	5
437	Possession of a controlled drug with intent to supply - Class B - Synthetic cannabinoid receptor agonists	5
438	Possession of a controlled drug with intent to supply - Class B - Other	5
439	Possession of a controlled drug with intent to supply - Class C - Other	5
440	Attempted - Possession of a controlled drug with intent to supply - Class C - Other	5
441	Possession of a controlled drug with intent to supply - Class unspecified	5
442	Possession of a controlled drug with intent to supply a class B controlled drug	5
443	Supplying or offering to supply or being concerned in supplying a controlled drug - khat	5
444	Possession of a controlled drug with intent to supply - Class B - Ketamine	5
445	Produce or being concerned in the production of a drug subject of a temporary class drug order	5
446	Supply or being concerned in the supply of a drug subject of a temporary class drug order	5
447	Possess a psychoactive substance in a custodial institution	5
448	Triable Either Way Offences under: Human Medicines Regulations 2012 CJS Ref: HM12001-6, 8-20, 23-32	5
449	Obstruction etc of officers; furnishing false information	5
450	Ill treatment or neglect of a person lacking capacity by anyone responsible for that persons care	5
451	Encouraging or assisting in the commission of an either way offence believing it will be committed	5
452	Assisting offender (offence triable either-way)	5
453	Sec 4 POA Fear or provocation of violence	5
454	Attempted - Sec 4 POA Fear or provocation of violence	5
455	Racially or religiously aggravated intentional harassment, alarm or distress	5
456	Attempted - Racially or religiously aggravated intentional harassment, alarm or distress	5
457	Firearms Act 1968, Person under 17 having with him an air weapon or ammunition (Group III)	5
458	Police Reform Act 2002 , With intent to deceive impersonating a designated or accredited person or person assisting in the execution of his duty	5
459	Police Reform Act 2002 - Failing to give name and address when required to do so or giving false or inaccurate name or address in response to a requirement	5
460	Road Traffic Act 1988 - Driving while disqualified	5
461	Bigamy	4
462	Possession of extreme pornographic images - an act which results, or is likely to result, in serious injury to a person's anus, breasts or genitals	4
463	Possession of extreme pornographic image - a person performing an act of intercourse or oral sex with an animal (whether dead or alive) (bestiality)	4
464	Attempted - Possession of extreme pornographic image - a person performing an act of intercourse or oral sex with an animal (whether dead or alive) (bestiality)	4
465	Interference with a motor vehicle	3
466	Attempted - Interference with a motor vehicle	3
467	Tampering with motor vehicles	3
468	Attempted - Tampering with motor vehicles	3
469	Going equipped for stealing etc	3
470	Attempted - Going equipped for stealing etc	3
471	Indecent matter publicly displayed	3
472	Produce Cannabis a Class C controlled Drug	3
473	Production or being concerned in production of a controlled drug - Unspecified	3
474	Having possession of a controlled drug - Class A - Cocaine	3
475	Attempted - Having possession of a controlled drug - Class A - Cocaine	3
476	Having possession of a controlled drug - Class A - Heroin	3
477	Having possession of a controlled drug - Class A - LSD	3

478	Having possession of a controlled drug - Class A - MDMA	3
479	Having possession of a controlled drug - Class A - Crack	3
480	Having possession of a controlled drug - Class A - Methadone	3
481	Having possession of a controlled drug - Class A - Other	3
482	Attempted - Having possession of a controlled drug - Class A - Other	3
483	Having possession of a controlled drug - Class A - Crystal Meths	3
484	Obtain/procure/retain personal data without consent of controller	3
485	Fish / take fish by other than licensable means in circumstances where fish / taking may or may not be authorised, or possess unlicensed instrument with intent to fish / take fish or without a S27A authority	3
486	Sec 4a POA Causing intentional harassment, alarm or distress	3
487	Attempted - Sec 4a POA Causing intentional harassment, alarm or distress	3
488	Criminal Justice and Public Order Act 1994 added by Anti-Social Behaviour Act 2003, Failing to leave land as directed or returning as a trespasser within three months	3
489	Terrorism Act 2000 - Wearing any item of dress in support of a proscribed organisation	3
490	Political Parties, Elections and Referendums Act 2000, Summary offences	3
491	Children Act 1989, Taking, keeping, inducing, assisting or inciting a child away from the person having responsibility for care under a care order, emergency protection order or police protection	3
492	Copyright, Designs & Patents Act 1988, Summary offences	3
493	Road Traffic Act 1988, Driving or attempting to drive a mechanically propelled vehicle whilst unfit to drive through drink or drugs (Only to be used where it is unclear whether it is drink or drugs)	3
494	Road Traffic Act 1988, Driving or attempting to drive a mechanically propelled vehicle whilst unfit to drive through drink or drugs, Drugs	3
495	Road Traffic Act 1988, Driving or attempting to drive a motor vehicle while having a breath, blood or urine alcohol concentration in excess of the prescribed limit	3
496	Road Traffic Act 1988 - Driving or attempting to drive a motor vehicle and failing to without a reasonable excuse provide a specimen for a laboratory test or 2 specimens for analysis of breath	3
497	Road Traffic Act 1988, Failing to produce driving licence	3
498	Road Traffic Act 1988 , Using motor vehicle uninsured against third party risks	3
499	Assault without injury on a constable (Police Act offence)	2
500	Attempted - Assault without injury on a constable (Police Act offence)	2
501	Assault without Injury on a Constable - Assaults a designated person or his assistant in the exercise of a relevant power	2
502	Assault without injury on a constable (NOT covered by the Police Act 1996)	2
503	Assault without Injury on a Constable - Vagrant violently resisting a constable	2
504	Assault or assault by beating of a constable	2
505	Attempted - Assault or assault by beating of a constable	2
506	Assault without Injury - Assault on County Court officer	2
507	Assault without Injury - Assault on prison custody officer	2
508	Attempted - Assault without Injury - Assault on prison custody officer	2
509	Assault without Injury - Assault on court security officer	2
510	Assault without Injury - Assaulting a designated or accredited person in the execution of their duty	2
511	Assault without Injury - Resisting or wilfully obstructing a designated or accredited person in the execution of their duty	2
512	Assault or assault by beating of an emergency worker (except a constable)	2
513	Attempted - Assault or assault by beating of an emergency worker (except a constable)	2
514	Carrying a loaded or unloaded or imitation firearm or air weapon in public place	2
515	Soliciting another for the purpose of obtaining their sexual services as a prostitute in a street or public place	2
516	Possess/control article(s) for use in fraud(s)	2
517	Attempted - Possess/control article(s) for use in fraud(s)	2
518	Theft from the person of another	2
519	Attempted - Theft from the person of another	2
520	Theft in a dwelling other than from automatic machine or meter	2
521	Attempted - Theft in a dwelling other than from automatic machine or meter	2
522	Theft of Mail	2
523	Attempted - Theft of Mail	2
524	Take or ride a pedal cycle without consent etc	2

525	Attempted - Take or ride a pedal cycle without consent etc	2
526	Theft or Unauthorised Taking of a Pedal Cycle	2
527	Attempted - Theft or Unauthorised Taking of a Pedal Cycle	2
528	Theft from a motor vehicle	2
529	Attempted - Theft from a motor vehicle	2
530	Theft from vehicle other than a motor vehicle	2
531	Attempted - Theft from vehicle other than a motor vehicle	2
532	Theft from automatic machine or meter	2
533	Attempted - Theft from automatic machine or meter	2
534	Theft if not classified elsewhere	2
535	Attempted - Theft if not classified elsewhere	2
536	Removal of articles from places open to the public	2
537	(outcomes only) Fraud by false representation: cheque, plastic card and online bank accounts (not PSP)	2
538	(outcomes only) Fraud by false representation: other frauds	2
539	Receiving stolen goods	2
540	Other criminal damage to a dwelling (£5,000 and over)	2
541	Attempted - Other criminal damage to a dwelling (£5,000 and over)	2
542	Other criminal damage to a building other than a dwelling (£5,000 and over)	2
543	Other criminal damage to a vehicle (£5,000 and over)	2
544	Attempted - Other criminal damage to a vehicle (£5,000 and over)	2
545	Other criminal damage, other (£5,000 and over)	2
546	Racially or religiously aggravated criminal damage	2
547	Threats to destroy or damage property	2
548	Attempted - Threats to destroy or damage property	2
549	Possess / control identity documents with intent (Indictable)	2
550	Possess / control a false / improperly obtained / another persons identity document	2
551	Attempted - Possess / control a false / improperly obtained / another persons identity document	2
552	Public Nuisance	2
553	False written statements tendered in evidence (Indictable)	2
554	Fraud, forgery etc associated with insurance certificate	2
555	Fraud, forgery etc associated with registration and licensing documents	2
556	Harassment etc. of a person in his home	2
557	Attempted - Harassment etc. of a person in his home	2
558	Assault with intent to resist apprehension	2
559	Attempted - Assault with intent to resist apprehension	2
560	Owner or person in charge allowing dog to be dangerously out of control in a public place injuring any person	2
561	Owner or person in charge allowing dog to be dangerously out of control injuring any person or assistance dog	2
562	Attempted - Owner or person in charge allowing dog to be dangerously out of control injuring any person or assistance dog	2
563	Owner or person in charge allowing dog to enter a non-public place and injure any person	2
564	Sending letters etc with intent to cause distress or anxiety, Malicious Communications Act 1988	2
565	Attempted - Sending letters etc with intent to cause distress or anxiety, Malicious Communications Act 1988	2
566	Having possession of a controlled drug - Class B - Amphetamine	2
567	Attempted - Having possession of a controlled drug - Class B - Amphetamine	2
568	Having possession of a controlled drug - Class B - Synthetic cannabinoid receptor agonists	2
569	Attempted - Having possession of a controlled drug - Class B - Synthetic cannabinoid receptor agonists	2
570	Having possession of a controlled drug - Class B - Other	2
571	Having possession of a controlled drug - Class B - Ketamine	2
572	Attempted - Having possession of a controlled drug - Class B - Ketamine	2
573	Having possession of a controlled drug - Class B - Cannabis	2
574	Attempted - Having possession of a controlled drug - Class B - Cannabis	2
575	Failing to comply with an order issued under Sec 26	2
576	Unlawful interception of a postal public or private telecommunication scheme	2
577	Dishonestly obtaining electronic communication services	2
578	Possession or supply of apparatus etc for contravening Sec 125	2

579	Fraud etc	2
580	Attempted - Fraud etc	2
581	Racially or religiously aggravated harassment, alarm or distress	2
582	Attempted - Racially or religiously aggravated harassment, alarm or distress	2
583	(outcomes only) Fraud by False Representation	2
584	Animal Health Act 1981, Cruelty to animals (offences against movement of animals)	2
585	Protection of Animals Act 1911, Cruelty to Animals	2
586	Wildlife and Countryside Act 1981, Protection of certain wild animals	2
587	Wild Mammals (Protection) Act 1996 - Offences under this act	2
588	Animal Welfare Act 2006, Causing, permitting or failing to prevent unnecessary suffering	2
589	Public Order Act 1986 (Crime & Courts Act 2013 ammended) (SI 2981/2013), Use/display threatening behaviour/words (written or spoken)/visual representation likely to cause harassment/alarm/distress	2
590	Football Offences Act 1991 - Taking part in indecent or racist chanting	2
591	Theft Act 1968 - Being carried knowing vehicle to have been taken or driven away	2
592	Road Traffic Act 1988 - Dangerous riding by pedal cyclist	2
593	Sexual Offences Act 2003 - Sexual activity in a public lavatory	2
594	Vagrancy Act 1824 - Collecting alms or endeavouring to procure charitable contributions by fraudulent pretence	2
595	Wildlife and Countryside Act 1981, Protection of wild birds	2
596	Wildlife and Countryside Act 1981, Protection of nests and eggs of wild birds	2
597	Postal Services Act 2000 S84, Delaying or opening postal packet or mailbag by non-operator; opening incorrectly delivered postal packet	2
598	Telecommunications Act 1984, Offences against the Telecommunications Code	2
599	Telecommunications Act 1984 as amended by Criminal Justice & Public Order Act 1994 , Improper use of public Telecommunication system	2
600	Criminal Justice and Public Order Act 1994, Failure to stop a vehicle when required to do so by a constable in the exercise of his powers under this section of the Act	2
601	Police Act 1996, Impersonation of member of police force or special constable	2
602	Traffic Management Act 2004, Impersonating a traffic officer	2
603	Communications Act 2003, Sending or causing sending of grossly offensive / indecent / obscene / menacing or false message / matter by electronic communications network	2
604	Road Traffic Act 1988 - Being in charge of mechanically propelled vehicle whilst unfit to drive through drink or drugs - Drink	2
605	Road Traffic Act 1988 - Being in charge of mechanically propelled vehicle whilst unfit to drive through drink or drugs - Drugs	2
606	Road Traffic Act 1988, Being in charge of mechanically propelled vehicle whilst unfit to drive through drink or drugs (Only to be used where it is unclear whether it is drink or drugs)	2
607	Road Traffic Act 1988 - In charge of a motor vehicle while having a breath, blood or urine alcohol concentration in excess of the prescribed limit	2
608	Road Traffic Act 1988 - In charge of a motor vehicle and failing without reasonable excuse to provide a specimen for a laboratory test or two specimens for analysis of breath	2
609	Road Traffic Act 1988 - Failing without reasonable excuse to provide a specimen of breath for a preliminary test	2
610	Road Traffic Act 1988, Driving or attempting to drive a mechanically propelled vehicle whilst unfit to drive through drink or drugs, Drink	2
611	Police Reform Act 2002 - Failure to comply with an order to stop a moving vehicle	2
612	Road Traffic Act 1988 - Failing to stop after accident	2
613	Road Traffic Act 1988, Failing to report accident within 24 hours	2
614	Road Traffic Act 1988 - Failing to give name and address after accident	2
615	Road Vehicles (Registration and Licensing) Regulations 2002, Driving with excess passengers when vehicle used under trade licence	2
616	Road Traffic Act 1988 added by Road Traffic Act 1991 , Using vehicle in dangerous condition etc	2
617	Road Traffic Act 1988, Neglect or refusal to stop when directed by a constable/traffic officer:	2
618	Road Traffic Act 1988 , Failing to stop motor vehicle when required by police officer in uniform	2
619	Road Traffic Act 1988, Person keeping vehicle failing to give driver's name and address on demand	2

620	Road Traffic Act 1988 added by Road Vehicles (Powers to Stop) Regulations 2011 - Impersonating or making statement or doing an act to falsely suggest being a stopping officer	2
621	Telecommunications Act 1984, Modification etc of messages	2
622	Assault without Injury - Common assault and battery	1
623	Attempted - Assault without Injury - Common assault and battery	1
624	Possession of firearms by persons previously convicted of crime (Group III)	1
625	Abstracting electricity	1
626	Theft from shops and stalls	1
627	Attempted - Theft from shops and stalls	1
628	Making off without payment	1
629	Attempted - Making off without payment	1
630	Other criminal damage to a dwelling (Under £5,000)	1
631	Attempted - Other criminal damage to a dwelling (Under £5,000)	1
632	Other criminal damage to a building other than a dwelling (Under £5,000)	1
633	Attempted - Other criminal damage to a building other than a dwelling (Under £5,000)	1
634	Other criminal damage to a vehicle (Under £5,000)	1
635	Attempted - Other criminal damage to a vehicle (Under £5,000)	1
636	Other criminal damage, other (Under £5,000)	1
637	Attempted - Other criminal damage, other (Under £5,000)	1
638	Offence of breach of pre-charge bail conditions relating to travel	1
639	Obstructing a PC in exercise of a S23A (6) power to detain or search a person, vehicle or vessel regarding a drug the subject of a temporary class drug order	1
640	Obstructing powers of search etc or concealing drugs etc	1
641	Having possession of a controlled drug - Class C - Other	1
642	Having possession of a controlled drug - Class unspecified	1
643	POSSESS CANNABIS A CLASS C CONTROLLED DRUG	1
644	Obtain benefits or advantage for himself or anyone else by making dishonest representations	1
645	Without lawful authority immobilise a motor vehicle by the attachment to or part of it an immobilising device	1
646	Sec 5 POA Harassment, alarm or distress	1
647	Attempted - Sec 5 POA Harassment, alarm or distress	1
648	Police Act 1996 - Resisting or obstructing a constable in execution of duty	1
649	Resisting or obstructing constables; offences against provisions in Local Acts (other than 104/31, 33 & 34) - Resisting or obstructing constables in execution of duty	1
650	Dangerous Dogs Act 1991 - Possession, without exemption, of a Pit Bull Terrier, Japanese Tosa or other designated fighting dog	1
651	Dangerous Dogs Act 1991, Owner or person in charge allowing dog to be dangerously out of control in a public place, no injury being caused	1
652	Dangerous Dogs Act 1991, Owner or person in charge allowing dog to enter a non-public place causing reasonable apprehension of injury to a person	1
653	Dangerous Dogs Act 1989 - Having custody of dog in breach of disqualification order	1
654	Owner / person in charge of a dog dangerously out of control - no injury	1
655	Dogs (Protection of Livestock) Act 1953, Dogs worrying livestock on agricultural land	1
656	Game Act 1831 as amended by Criminal Justice and Public order Act 1994, Game Act 1831 : Day poaching	1
657	Poaching Prevention Act 1862, Coming from land in possession of game which has been unlawfully obtained or with gun or net	1
658	Hunting Act 2004 - Participating in a hare coursing event	1
659	Highways Act 1980 , Obstructions other than those caused by vehicles	1
660	Explosives Act 1875 - Throwing, casting or firing any fireworks in or into any highway, street, public place etc	1
661	Criminal Justice and Public Order Act 1994, Failure to leave land when directed or returning within three months of the direction (Aggravated Trespass)	1
662	Criminal Justice and Immigration Act 2008 - Without reasonable excuse causing a nuisance or disturbance on NHS premises	1
663	Road Traffic Act 1988 , Careless riding by pedal cyclist	1
664	Road Traffic Act 1988 , Bicycle, more than one person carried	1
665	Drunk and disorderly in a public place	1

666	Licensing Act 1902 - Being drunk in any Highway or other public place or on licensed premises while having charge of a child under seven years	1
667	Wildlife and Countryside Act 1981 added by Natural Environment and Rural Communities Act 2006 - Change of owner or occupier in area of special scientific interest failing to with requirements	1
668	Local Government Act 1972, Offences against Byelaws made under these sections (except Public Health and Highways Byelaws):-Disorderly behaviour	1
669	Town Police Clauses Act 1847 - Indecent behaviour in police station	1
670	Regulation of Railways Act 1868 - Trespassing on railway	1
671	Vagrancy Act 1824 - Begging: second conviction as an idle and disorderly person	1
672	Vagrancy Act 1824 - Being on enclosed premises for an unlawful purpose	1
673	Vagrancy Act 1824, Peddlers; trading prostitutes; begging alms; idle and disorderly persons	1
674	Immigration Act 1971, Non-citizen entering UK in breach of a deportation order	1
675	Immigration Act 1971 - Non citizen entering UK without leave	1
676	Prison Act 1952 added by Offender Management Act 2007, Conveyance etc of List C articles into or out of prison	1
677	Refuse Disposal (Amenity) Act 1978 , Dumping	1
678	Criminal Law Act 1967 - Causing wasteful employment of the police etc	1
679	Treasure Act 1996, Failure by person finding an object which he believes or has reasonable grounds for believing is treasure to notify coroner for the district in which the object was found before the end of the notice period	1
680	Police Act 1996 - Person not being a member of police force or special constable having in possession any article of police uniform gained unlawfully (impersonation)	1
681	Representation of the People Act 1983, Other voting offences	1
682	Tattooing of Minors Act 1969 - Tattooing person under eighteen other than for medical reasons	1
683	Gender Recognition Act 2004 - Having acquired protected information in an official capacity disclosing that information	1
684	Emergency Workers (Obstruction) Act 2006, Obstructing or hindering another while he or she is responding to or assisting a third person responding in S1(2) capacity to emergency circumstances	1
685	Road Traffic Act 1988, Careless driving, without due care or attention	1
686	Road Vehicles (Construction & Use) Regulations 1986 - Using hand held mobile phone while driving	1
687	Road Traffic Act 1988 as amended by Road Traffic Act 1991, Motor Vehicles (Driving Licences) Regulations 1999, Driving, causing or permitting a person to drive other than in accordance with a licence (full or provisional) (except HGV)	1
688	Road Traffic Act 1988 added by Road Safety Act 2006 - Keeping vehicle which does not meet insurance requirements	1
689	Road Traffic Act 1988, Failing to produce insurance certificate (not after accident)	1
690	Road Traffic Act 1988 - Failing to produce certificate of insurance after accident	1
691	Vehicle Excise and Registration Act 1994 , Contravention of regulations made under this Act other than regulations made under Sections 24, 26, 27 & 28	1
692	Road Traffic Act 1988, Using vehicle without test certificate	1
693	Road Traffic Act 1988 , Failing to comply with traffic signals/signs (motor vehicles), offences NOT detected by camera devices	1
694	Road Vehicle Lighting Regulations 1989, All lighting offences and all rear marking offences in respect of motor vehicles	1
695	Highway Act 1835 (as amended), Wilful or unnecessary obstruction	0.3
696	Highways Act 1980 - Wilful or unnecessary obstruction by motor vehicles	0.3
697	Common Law, Breach of the Peace	0.1
698	Criminal Justice Act 1991 added by Crime and Disorder Act 1998, Failure to comply with conditions specified on licence (release following recall to prison)	0.1

Appendix B - Table of USER CRIS Crime Count for SUSPECT and VICTIM

USER	SUSPECT CRIS	VICTIM CRIS	TOTAL CRIS
USER695	22	24	44
USER424	17	3	20
USER767	7	12	19
USER559	17	1	17
USER203	14	1	15
USER333	9	5	14
USER904	4	9	13
USER772		12	12
USER757	10	1	11
USER701	4	7	11
USER182	6	5	11
USER170	8	3	11
USER440	10	1	11
USER148	10		10
USER766	1	9	10
USER306	10		10
USER759	8	2	10
USER93	1	9	10
USER27	3	6	9
USER401	8	1	9
USER568	4	5	9
USER892	5	3	8
USER785	8		8
USER14		8	8
USER711	8		8
USER540	4	3	7
USER884	4	3	7
USER804		7	7
USER298	6	1	7
USER301	7		7
USER419	4	3	7
USER390	3	4	7
USER842	1	5	6
USER392	6		6
USER204	3	3	6
USER157	5	1	6
USER840	5	1	6
USER315		6	6
USER876		6	6
USER444	3	3	6
USER765	4	2	6
USER791	2	4	6
USER688	5	1	6
USER477		6	6
USER561	4	2	6
USER622	2	3	5
USER748	3	2	5
USER699	4	1	5
USER272	5		5
USER586	4	1	5
USER326	3	2	5
USER693	4	1	5
USER469	2	3	5
USER727	4	1	5
USER507	4	1	5
USER885		5	5

USER570	1	4	5
USER260	5		5
USER808	2	2	4
USER687	1	3	4
USER877	2	2	4
USER439	1	3	4
USER710	4		4
USER447	3	1	4
USER838	2	2	4
USER464	4		4
USER905		4	4
USER311	4		4
USER71	3	1	4
USER530	4		4
USER787	2	2	4
USER319	2	2	4
USER812	4		4
USER269	2	2	4
USER867	3	1	4
USER614	3	1	4
USER422	1	3	4
USER625	4		4
USER636	2	2	4
USER658	3	1	4
USER906	1	2	3
USER487	1	2	3
USER571	1	2	3
USER261	2	1	3
USER875		3	3
USER517	1	2	3
USER222	3		3
USER654	3		3
USER825		3	3
USER43	1	2	3
USER863	1	2	3
USER273		3	3
USER921	2	1	3
USER374	2	1	3
USER569	3		3
USER697	3		3
USER115	3		3
USER383	2	1	3
USER824	2	1	3
USER539		3	3
USER833	2	1	3
USER178		3	3
USER230	1	2	3
USER72	2	1	3
USER589		3	3
USER391	3		3
USER495	2	1	3
USER399		3	3
USER329	1	2	3
USER760	3		3
USER460	1	2	3
USER781	3		3
USER620	3		3
USER626		3	3
USER150	1	1	2
USER723	1	2	2
USER412	2		2
USER138		2	2
USER778	1	1	2
USER432		2	2

USER861	2		2
USER435	2		2
USER700	1	1	2
USER166	1	1	2
USER379	2		2
USER11		2	2
USER39	1	1	2
USER456		2	2
USER398	1	1	2
USER458	2		2
USER888	1	1	2
USER304	1	1	2
USER922		2	2
USER468		2	2
USER193	1	1	2
USER309		2	2
USER736	1	1	2
USER480	1	1	2
USER217	2		2
USER485		2	2
USER792		2	2
USER266	1	1	2
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USER504	2		2
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USER514	1	1	2
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USER545	2		2
USER421	2		2
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USER373	1	1	2
USER557	2		2
USER729	1	1	2
USER56	1	1	2
USER755	2		2
USER560	2		2
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USER823	1	1	2
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USER642	2		2
USER831		2	2
USER353	1	1	2
USER28		2	2
USER659	1	1	2
USER85	1	2	2
USER660	1	1	2

USER865		2	2
USER661	2		2
USER882	1	1	2
USER664	1	1	2
USER245		2	2
USER678	1	1	2
USER406	2		2
USER355	1	1	2
USER912	2		2
USER691		2	2
USER416	1	1	2
USER337		1	1
USER277	1		1
USER387		1	1
USER167		1	1
USER4		1	1
USER498	1		1
USER10	1		1
USER645		1	1
USER810		1	1
USER646		1	1
USER602		1	1
USER650	1		1
USER404		1	1
USER501		1	1
USER351		1	1
USER655	1		1
USER783	1		1
USER354	1		1
USER223		1	1
USER502		1	1
USER325		1	1
USER144		1	1
USER591		1	1
USER313	1		1
USER855	1		1
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USER682	1		1
USER482	1		1
USER685		1	1
USER813		1	1
USER686		1	1
USER164		1	1
USER145	1		1
USER827		1	1
USER180	1		1
USER600		1	1
USER69	1		1
USER612	1		1
USER45	1		1
USER859		1	1

USER692		1	1
USER156	1		1
USER36		1	1
USER332		1	1
USER529		1	1
USER881		1	1
USER47		1	1
USER405		1	1
USER538	1		1
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USER637		1	1
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USER562		1	1
USER706		1	1
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USER219		1	1
USER366		1	1
USER788	1		1
USER470		1	1
USER567		1	1
USER712		1	1
USER800	1		1
USER717		1	1
USER805		1	1
USER546		1	1
USER81		1	1
USER472		1	1
USER323	1		1
USER724	1		1
USER300		1	1
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USER820		1	1
USER473		1	1
USER494		1	1
USER73	1		1
USER264		1	1
USER730		1	1
USER590	1		1
USER731		1	1
USER152	1		1
USER735		1	1
USER224		1	1
USER551	1		1
USER846		1	1
USER740	1		1
USER613		1	1
USER742		1	1
USER856		1	1
USER743		1	1
USER33	1		1
USER746	1		1
USER616		1	1
USER747		1	1
USER869		1	1
USER377		1	1
USER870		1	1
USER752		1	1
USER234		1	1

USER753		1	1
USER879		1	1
USER554		1	1
USER111		1	1
USER122		1	1
USER239		1	1
USER126		1	1
USER886		1	1
USER475		1	1
USER889		1	1
USER761		1	1
USER967		1	1
USER322		1	1
USER902		1	1
USER211		1	1
USER339		1	1
USER310	1		1
USER909	1		1
USER769		1	1
USER312		1	1
USER218		1	1
USER694		1	1
USER114		1	1
USER117		1	1
USER362		1	1
USER98		1	1
USER628		1	1
USER630		1	1
Grand Total	535	474	993

Appendix C - Table of USER CCHI Score for SUSPECT, VICTIM, and CUMULATIVE

USER	Harm SUSPECT Score	USER	CCHI Harm VICTIM Score	USER	CCHI Harm CUMULATIVE Score
USER230	5475	USER539	3295	USER230	5494
USER765	2921	USER468	3288	USER787	3486.5
USER787	2555	USER842	2922	USER840	3325
USER10	2555	USER877	2007.5	USER539	3295
USER840	2412.5	USER636	1827	USER468	3288
USER699	2008.5	USER700	1825	USER765	2933
USER904	1847	USER355	1825	USER842	2924
USER867	1844	USER136	1825	USER10	2555
USER272	1468	USER766	934.5	USER699	2018.5
USER401	1291.5	USER787	931.5	USER877	2011.5
USER781	923.5	USER487	913.5	USER636	2010.5
USER182	918.5	USER743	912.5	USER904	1899
USER658	916.5	USER717	912.5	USER867	1854
USER826	915.5	USER840	912.5	USER355	1835
USER918	914.5	USER374	912.5	USER700	1827
USER496	740	USER469	912.5	USER136	1825
USER412	566.5	USER144	912.5	USER272	1468
USER306	563.5	USER164	912.5	USER401	1301.5
USER71	558.5	USER264	912.5	USER469	1278.5
USER767	552.5	USER695	746	USER767	1115
USER654	549.5	USER791	730	USER374	1096
USER808	548.5	USER501	730	USER766	944.5
USER569	548.5	USER767	562.5	USER182	930.5
USER310	547.5	USER876	562.5	USER781	923.5
USER329	547.5	USER273	547.5	USER658	917.5
USER498	547.5	USER477	406	USER826	915.5
USER757	413	USER701	398	USER487	915.5
USER711	394	USER460	368	USER918	914.5
USER333	389	USER885	367	USER164	912.5
USER383	375	USER691	366	USER264	912.5
USER170	374	USER571	366	USER144	912.5
USER469	366	USER824	365	USER717	912.5
USER727	366	USER98	365	USER743	912.5
USER568	366	USER245	365	USER695	785
USER774	365	USER881	365	USER496	740
USER69	365	USER404	365	USER501	730
USER150	365	USER398	365	USER791	730
USER390	259	USER759	365	USER701	594.5
USER424	222.5	USER432	365	USER412	566.5
USER203	215.5	USER440	365	USER306	563.5
USER710	204.5	USER769	365	USER876	562.5
USER701	196.5	USER502	365	USER71	559.5
USER561	195.5	USER777	365	USER808	558.5
USER507	195.5	USER967	365	USER329	557.5
USER157	192.5	USER570	193.5	USER654	549.5
USER392	189.5	USER43	187.5	USER569	548.5
USER204	186.5	USER825	184.5	USER727	548.5
USER636	183.5	USER419	184.5	USER310	547.5
USER560	183.5	USER817	184.5	USER498	547.5
USER374	183.5	USER138	184.5	USER273	547.5

USER548	182.5	USER575	184.5	USER757	413
USER67	182.5	USER11	183.5	USER333	408
USER373	182.5	USER14	183.5	USER477	406
USER304	182.5	USER823	182.5	USER203	398
USER559	55	USER747	182.5	USER440	397
USER892	47	USER602	182.5	USER711	394
USER298	41	USER203	182.5	USER170	387
USER695	39	USER353	182.5	USER759	377
USER217	38	USER473	182.5	USER383	375
USER785	37	USER870	182.5	USER398	375
USER440	32	USER529	182.5	USER460	373
USER688	27	USER94	182.5	USER824	371
USER260	25	USER540	182.5	USER150	369
USER435	20	USER782	182.5	USER571	369
USER269	20	USER548	182.5	USER568	368
USER819	19	USER793	182.5	USER774	367
USER180	19	USER405	182.5	USER885	367
USER586	18	USER856	182.5	USER691	366
USER148	17	USER902	182.5	USER69	365
USER625	16	USER422	182.5	USER548	365
USER444	15	USER921	182.5	USER881	365
USER921	13	USER922	182.5	USER404	365
USER27	13	USER586	182.5	USER502	365
USER421	12	USER727	182.5	USER245	365
USER759	12	USER904	52	USER967	365
USER755	12	USER875	40	USER432	365
USER495	12	USER204	39	USER777	365
USER406	11	USER315	28	USER769	365
USER391	11	USER27	26	USER98	365
USER363	10	USER399	24	USER390	266
USER736	10	USER85	22	USER424	242.5
USER355	10	USER93	22	USER204	225.5
USER152	10	USER444	21	USER507	205.5
USER85	10	USER424	20	USER710	204.5
USER677	10	USER761	19	USER586	200.5
USER398	10	USER630	19	USER561	197.5
USER166	10	USER224	19	USER157	197.5
USER909	10	USER230	19	USER921	195.5
USER687	10	USER706	19	USER570	195.5
USER766	10	USER567	19	USER43	190.5
USER530	10	USER239	19	USER392	189.5
USER557	10	USER333	19	USER419	188.5
USER812	9	USER772	15	USER823	187.5
USER620	9	USER170	13	USER540	187.5
USER614	9	USER884	12	USER373	184.5
USER697	9	USER765	12	USER422	184.5
USER504	7	USER182	12	USER138	184.5
USER301	7	USER622	12	USER825	184.5
USER115	7	USER865	11	USER817	184.5
USER326	6	USER269	11	USER575	184.5
USER222	6	USER256	10	USER560	183.5
USER760	6	USER329	10	USER11	183.5
USER824	6	USER507	10	USER14	183.5
USER464	6	USER377	10	USER67	182.5
USER748	6	USER56	10	USER304	182.5
USER833	5	USER660	10	USER793	182.5
USER72	5	USER879	10	USER602	182.5
USER855	5	USER699	10	USER782	182.5
USER460	5	USER166	10	USER353	182.5
USER540	5	USER639	10	USER405	182.5
USER693	5	USER752	10	USER529	182.5
USER849	5	USER613	10	USER856	182.5
USER318	5	USER401	10	USER94	182.5
USER906	5	USER867	10	USER747	182.5

USER823	5	USER804	10	USER870	182.5
USER447	5	USER808	10	USER473	182.5
USER482	5	USER723	10	USER902	182.5
USER18	5	USER390	7	USER922	182.5
USER861	4	USER905	6	USER559	55
USER661	4	USER712	5	USER892	51
USER912	4	USER480	5	USER298	41
USER261	4	USER157	5	USER875	40
USER324	4	USER193	5	USER27	39
USER419	4	USER591	5	USER217	38
USER877	4	USER388	4	USER785	37
USER884	4	USER28	4	USER444	36
USER642	3	USER892	4	USER85	32
USER678	3	USER150	4	USER269	31
USER277	3	USER906	4	USER688	28
USER705	3	USER792	3	USER315	28
USER379	3	USER81	3	USER260	25
USER354	3	USER319	3	USER93	24
USER33	3	USER685	2	USER399	24
USER145	3	USER778	2	USER819	21
USER571	3	USER525	2	USER435	20
USER453	3	USER561	2	USER166	20
USER43	3	USER616	2	USER180	19
USER888	3	USER659	2	USER239	19
USER311	3	USER178	2	USER224	19
USER458	3	USER167	2	USER706	19
USER549	3	USER126	2	USER761	19
USER265	3	USER637	2	USER567	19
USER313	3	USER218	2	USER630	19
USER778	3	USER810	2	USER148	17
USER590	3	USER351	2	USER625	16
USER276	3	USER774	2	USER884	16
USER266	3	USER846	2	USER772	15
USER511	3	USER819	2	USER622	14
USER788	3	USER693	2	USER755	12
USER883	2	USER820	2	USER421	12
USER650	2	USER261	2	USER495	12
USER895	2	USER663	2	USER736	12
USER45	2	USER339	2	USER56	12
USER700	2	USER36	2	USER391	11
USER729	2	USER39	2	USER406	11
USER156	2	USER589	2	USER687	11
USER68	2	USER325	2	USER660	11
USER439	2	USER886	2	USER865	11
USER838	2	USER117	2	USER152	10
USER422	2	USER779	2	USER677	10
USER545	2	USER4	2	USER909	10
USER882	2	USER300	2	USER363	10
USER842	2	USER122	2	USER557	10
USER517	2	USER266	2	USER530	10
USER73	2	USER742	2	USER614	10
USER93	2	USER600	2	USER804	10
USER655	2	USER736	2	USER639	10
USER382	2	USER833	2	USER613	10
USER323	2	USER439	2	USER723	10
USER622	2	USER546	2	USER377	10
USER570	2	USER373	2	USER752	10
USER487	2	USER831	2	USER256	10
USER863	2	USER568	2	USER879	10
USER740	2	USER366	1	USER812	9
USER525	2	USER47	1	USER697	9
USER56	2	USER889	1	USER620	9
USER746	1	USER735	1	USER906	9
USER800	1	USER645	1	USER115	7

USER660	1	USER312	1	USER504	7
USER664	1	USER687	1	USER301	7
USER898	1	USER18	1	USER326	7
USER416	1	USER514	1	USER748	7
USER551	1	USER21	1	USER833	7
USER21	1	USER729	1	USER693	7
USER612	1	USER748	1	USER760	6
USER19	1	USER658	1	USER464	6
USER641	1	USER322	1	USER222	6
USER538	1	USER678	1	USER849	6
USER480	1	USER549	1	USER447	6
USER783	1	USER692	1	USER18	6
USER319	1	USER554	1	USER261	6
USER87	1	USER895	1	USER480	6
USER514	1	USER402	1	USER905	6
USER724	1	USER309	1	USER482	5
USER682	1	USER211	1	USER318	5
USER39	1	USER470	1	USER855	5
USER723	0	USER326	1	USER72	5
USER193	0	USER730	1	USER266	5
USER791	0	USER416	1	USER778	5
USER829	0	USER838	1	USER591	5
		USER332	1	USER193	5
		USER472	1	USER712	5
		USER337	1	USER912	4
		USER849	1	USER861	4
		USER219	1	USER324	4
		USER686	1	USER661	4
		USER19	1	USER678	4
		USER688	1	USER549	4
		USER175	1	USER439	4
		USER882	1	USER525	4
		USER447	1	USER319	4
		USER494	1	USER28	4
		USER805	1	USER388	4
		USER71	1	USER33	3
		USER614	1	USER458	3
		USER517	1	USER453	3
		USER813	1	USER313	3
		USER626	1	USER590	3
		USER641	1	USER276	3
		USER456	0	USER265	3
		USER495	0	USER277	3
		USER888	0	USER642	3
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		USER475	0	USER511	3
		USER694	0	USER705	3
		USER664	0	USER888	3
		USER829	0	USER311	3
		USER859	0	USER145	3
		USER387	0	USER379	3
		USER863	0	USER729	3
		USER72	0	USER882	3
		USER753	0	USER517	3
		USER485	0	USER895	3
		USER679	0	USER838	3
		USER114	0	USER39	3
		USER869	0	USER792	3
		USER318	0	USER81	3
		USER292	0	USER650	2
		USER731	0	USER883	2
		USER362	0	USER323	2
		USER383	0	USER655	2

		USER365	0	USER73	2
		USER646	0	USER68	2
		USER757	0	USER740	2
		USER263	0	USER863	2
		USER298	0	USER45	2
		USER559	0	USER156	2
		USER223	0	USER545	2
		USER234	0	USER382	2
		USER562	0	USER641	2
		USER827	0	USER21	2
				USER416	2
				USER19	2
				USER514	2
				USER178	2
				USER659	2
				USER600	2
				USER663	2
				USER36	2
				USER589	2
				USER685	2
				USER810	2
				USER126	2
				USER831	2
				USER637	2
				USER351	2
				USER779	2
				USER122	2
				USER300	2
				USER616	2
				USER820	2
				USER117	2
				USER546	2
				USER339	2
				USER846	2
				USER742	2
				USER325	2
				USER167	2
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				USER175	1
				USER470	1
				USER686	1
				USER309	1
				USER472	1
				USER692	1
				USER366	1
				USER47	1
				USER805	1

				USER402	1
				USER730	1
				USER735	1
				USER554	1
				USER889	1
				USER312	1
				USER494	1
				USER219	1
				USER211	1
				USER322	1
				USER626	1
				USER827	0
				USER646	0
				USER456	0
				USER223	0
				USER859	0
				USER679	0
				USER362	0
				USER694	0
				USER387	0
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				USER114	0
				USER562	0
				USER263	0
				USER111	0
				USER365	0
				USER485	0
				USER731	0
				USER829	0
				USER234	0
				USER869	0
				USER753	0
				USER475	0

Appendix D – Snapshot of Excel Table ALL USER CRIME and CCHI scores at 30, 60, and 90 days

[illegible]

Appendix E – Snapshot of Excel Table USER SUSPECT CRIME and CCHI scores at 30, 60, and 90 days

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63																																					

Appendix F – Snapshot of Excel Table USER VICTIM CRIME and CCHI scores at 30, 60, and 90 days

FBI		30		60		90		30		60		90		30		60		90		30		60		90	
Case #		Victim		Suspect		Offense		Victim		Suspect		Offense		Victim		Suspect		Offense		Victim		Suspect		Offense	
1	W-10001	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	W-1000111201	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	W-1000111202	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	W-1000111203	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	W-1000111204	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	W-1000111205	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	W-1000111206	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	W-1000111207	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	W-1000111208	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	W-1000111209	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	W-1000111210	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	W-1000111211	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	W-1000111212	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	W-1000111213	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	W-1000111214	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	W-1000111215	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	W-1000111216	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	W-1000111217	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	W-1000111218	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	W-1000111219	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	W-1000111220	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	W-1000111221	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	W-1000111222	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	W-1000111223	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	W-1000111224	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	W-1000111225	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	W-1000111226	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	W-1000111227	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	W-1000111228	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	W-1000111229	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	W-1000111230	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	W-1000111231	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	W-1000111232	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	W-1000111233	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	W-1000111234	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	W-1000111235	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	W-1000111236	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	W-1000111237	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	W-1000111238	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	W-1000111239	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	W-1000111240	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	W-1000111241	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
43	W-1000111242	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	W-1000111243	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	W-1000111244	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	W-1000111245	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	W-1000111246	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	W-1000111247	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	W-1000111248	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	W-1000111249	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	W-1000111250	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	W-1000111251	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	W-1000111252	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	W-1000111253	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	W-1000111254	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
56	W-1000111255	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
57	W-1000111256	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
58	W-1000111257	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
59	W-1000111258	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
60	W-1000111259	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
61	W-1000111260	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
62	W-1000111261	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
63	W-1000111262	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
64	W-1000111263	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
65	W-1000111264	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
66	W-1000111265	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
67	W-1000111266	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
68	W-1000111267	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
69	W-1000111268	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
70	W-1000111269	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
71	W-1000111270	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
72	W-1000111271	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
73	W-1000111272	10	0	0	0	0	0	0	0	0	0	0	0	0											